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APL Trade Network Interface

User Guide

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Wealth Connected™



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About This Manual

The APL Trade Network Client User Guide provides a comprehensive overview of the Trade Network interface, detailing the processes and workflows for connecting sponsor and manager directories, reconciling accounts, and processing trade orders. This guide outlines key functions, including the intraday order management, overnight reconciliation reports, and the configuration of automated processes for efficient data synchronization.

The APL Trade Network solution is a robust interfacing system designed to streamline communication and data integration between sponsors, broker-dealers, and money managers. By automating essential processes such as account synchronization, trade order matching, and reconciliation, the Trade Network enhances operational efficiency while reducing manual effort and errors.

The platform supports complex setups, including unified managed accounts (UMA) and multi-sleeve portfolios, enabling real-time collaboration and transparency across all connected parties. With features like exception reporting, flexible configurations, and audit-ready reports, the Trade Network is an essential tool for maintaining accuracy, compliance, and seamless trade execution.

InvestCloud has internal Interfacing called Trade Network (formerly known as Galaxy*) that links the Sponsor/Broker Dealers' directory and Money Managers' directory.

*Galaxy has been rebranded to Trade Network recognizing:

- That the Galaxy process is a core component to the network of interfaces
- That the trade processing between managers and sponsors is InvestCloud central value proposition
- That it captures all additional communication (key processes and data transformation that occurs between members of the network and eventually out of network)

The Interfaces run daily and are designed to keep the two client directories in sync.

1.1 Conventions used in this User Guide

- Most bolded APL fields (e.g., DESBRK) can be found in the back of this guide (APL Account Master Database Fields) - more information can be found in the APL Guides for Expert, Trading, etc
- Reports and command functions simulate real data

1.2 References to UMA/MSP

During the first quarter of 2007, InvestCloud deprecated "Multiple Strategy Portfolios" or MSP in favor of UMA. Some components of MSP are still used in UMA and are labeled as "MSP." MSP is not a separate application.

The term UMA is interchangeable with MSP; MSP is replaced by UMA.

1.3 What is APL?

APL stands out as a comprehensive and mature wealth management platform that integrates a wide range of functionalities across portfolio management, model management, data reconciliation, order execution, billing, and performance reporting. Its unified ecosystem streamlines workflows by connecting front-, middle-, and back-office operations through seamless interoperability between key components.

With solutions for centralized trading, model management, and data validation, APL ensures that users can align investment strategies with real-time market insights and execute tax-sensitive trades efficiently. This interconnectivity empowers wealth managers, financial advisors, and operations teams to achieve operational excellence while maintaining regulatory compliance and enhancing client outcomes.

APL's depth of feature coverage, supported by decades of innovation and strategic enhancements, offers unparalleled versatility and precision. The platform's components bridge gaps between sponsors, advisors, and asset managers, enabling real-time collaboration and data synchronization. Advanced audit tracking, customizable dashboards, and integrated compliance checks reduce manual errors and provide robust decision support.

APL's robust architecture supports complex portfolios and multi-custodial environments, reinforcing its reputation as a future-proof solution that meets the evolving needs of the financial industry.

Chapter 2: Overview

Trade Network traces its roots to "Galaxy," launched in 2003 by CheckFree to automate execution price transfers. Before that, managers had to manually log into each sponsor platform to reconcile trades. Today, TN delivers accurate straight-through processing across a network of the industry's top managers and sponsors.

This chapter covers:

- Trade Network Process
- Information Needed to Complete Setup
- General Interface Setup Information

Trade Network allows the Money Manager to shadow an account on their APL directory. The Manager reconciles the account to the Sponsor directory daily with the help of exception reports.

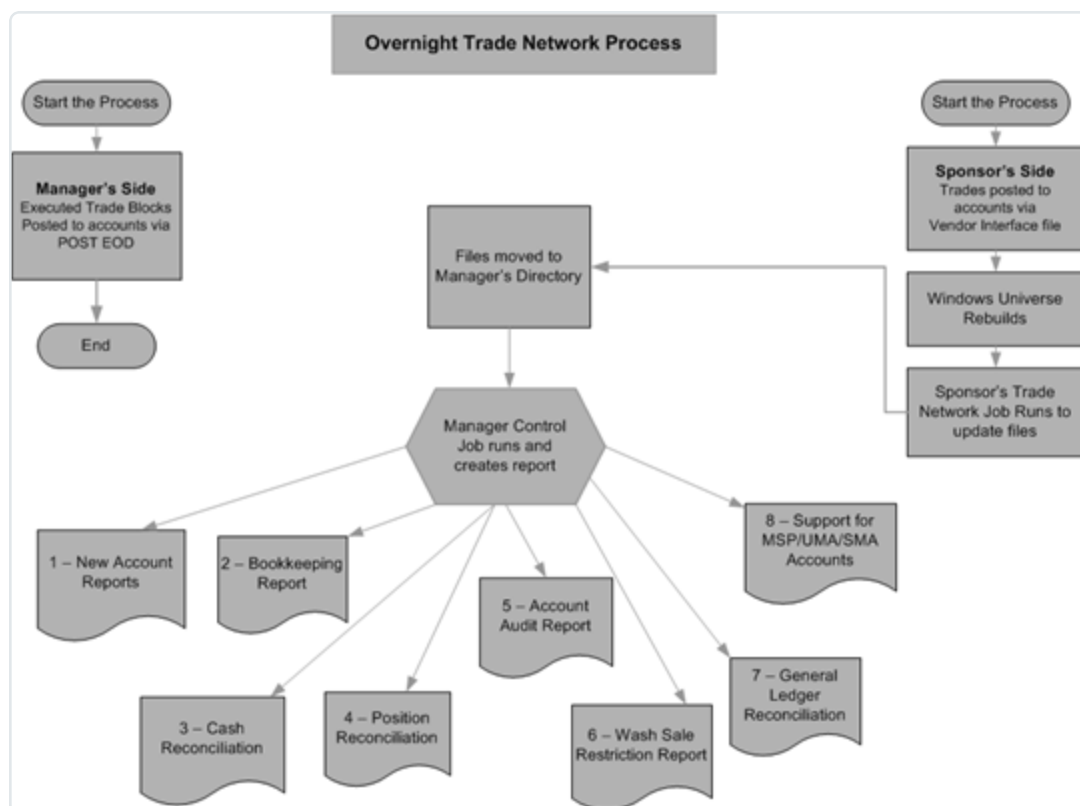
Main Benefit

- The Manager has complete control over the account to include it in performance composites and SEC reporting
- The Manager can use any customized functionality for trading and custom reports

The Trade Network Process consists of two steps:

- Intraday Order Management (Chapter 5)
- Overnight Processing (Chapter 3)

2.1 Overnight Processing Flowchart



2.2 Overnight Process

Once the process is complete, the following reports are generated:

- New Account - creates new accounts on Manager's side
- Bookkeeping - creates cash transactions (create/post)
- Cash Reconciliation - lists cash outages between Sponsor and Manager
- Position Reconciliation - positions outages between Sponsor and Manager
- Account Audit - account coding reconciliation between Sponsor and Manager
- Wash Sale Restrictions - optional report - Internal Revenue Service rule stating that losses on a sale of stock may not be used as losses for tax purposes (that is, used to offset gains) if the equivalent stock is purchased within 30 days before or 30 days after the sale
- General Ledger Reconciliation - back dated functionality that reconciles dated general ledger entries between Sponsor & Manager
- Support for UMA Accounts - this is where portions of a portfolio are managed by different investment sub-managers

2.3 Information Needed to Complete Setup

The Manager submits a ticket to set up a new Trade Network connection with an existing APL Sponsor.

The following is needed:

- Windows Universe must be set up on Sponsor directory
- Sponsor must submit a ticket to have a Windows Universe created in the Sponsor's directory for that Manager
- APL ID assigned by Sponsor
- Code sponsor uses to identify the accounts on the sponsor directory (MGR* code)
- Code manager uses to identify the accounts on the Manager directory (DESBK code)
- Account matching criteria (DTCNO, SNAM, BWNUM)
- When new accounts are expected
- Determination as to whether these accounts are UMA
 - If so, sleeve name will be needed

Note: The Trade Network Setup Checklist (sample form on the next page) is distributed to new setups; it must be completed before the Interface can be set up.

Trade Network Set-Up Checklist

Customer Operations
Client Interfaces Group
Trade Network Set Up Checklist

Client :		Date:	
Ticket # :		Associate:	

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Manager directory acronym</td><td></td></tr> <tr><td>Sponsor directory acronym</td><td></td></tr> <tr><td>Manager login id for the sponsor's directory</td><td></td></tr> <tr><td>Accounts match (SNAM, DTCNO, or BWNUM)</td><td></td></tr> <tr><td>MGR code on sponsor directory</td><td></td></tr> <tr><td>Acct Selection in sponsor window</td><td></td></tr> <tr><td>DESBRK code on the manager Directory</td><td></td></tr> <tr><td>Acct Selection on manager directory</td><td></td></tr> <tr><td>Do you want to post DIV/INT entries via galaxy</td><td></td></tr> <tr><td>How many days for look back of GL entries</td><td></td></tr> <tr><td>When are you expecting the 1st account</td><td></td></tr> <tr><td>Are any of these accounts UMA/MSP?</td><td></td></tr> <tr><td>Are you using RECON Tool?</td><td></td></tr> </table>	Manager directory acronym		Sponsor directory acronym		Manager login id for the sponsor's directory		Accounts match (SNAM, DTCNO, or BWNUM)		MGR code on sponsor directory		Acct Selection in sponsor window		DESBRK code on the manager Directory		Acct Selection on manager directory		Do you want to post DIV/INT entries via galaxy		How many days for look back of GL entries		When are you expecting the 1st account		Are any of these accounts UMA/MSP?		Are you using RECON Tool?		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>New Accounts</td><td></td></tr> <tr><td>Bookkeeping</td><td></td></tr> <tr><td>Cash Reconciliation</td><td></td></tr> <tr><td>Position Reconciliation</td><td></td></tr> <tr><td>Account Audit</td><td></td></tr> <tr><td>Restrictions</td><td></td></tr> <tr><td>Bookkeeping - Back Dated</td><td></td></tr> <tr><td>MSP Functionality</td><td></td></tr> </table>	New Accounts		Bookkeeping		Cash Reconciliation		Position Reconciliation		Account Audit		Restrictions		Bookkeeping - Back Dated		MSP Functionality	
Manager directory acronym																																											
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Bookkeeping - Back Dated																																											
MSP Functionality																																											

****FOR INTERNAL USE****

Control job location and aplogs

Sponsor ctl job	
Manager ctl job	
Sponsor job .aplog on test server	
Manager job .aplog on test server	

Senior Staff Check List

Galaxy Host Table		Acct selection in sponsor window -vs- sponsor control job	
Galaxy Broker Table		Did the Sponsor job run error free on the test server	
Galaxy Phone Table		Did the Manager job run error free on the test server	
Check List Approval		Welcome Pack Attachment	
RECON Tool Set-Up			

Senior Staff _____

Date _____

2.4 General Interface Set-Up Information

Configuration of transaction processing within the Bookkeeping functionality is controlled through the EDCOA (Edit Chart of Accounts) table. The EDCOA table will be established based on a generic configuration. A copy of this information can be provided upon request.

- EDCOA table codes

G.DIV	Dividend
G.DIVRNV	dividend reinvestment
G.DLV	deliver
G.DLVINC	deliver income
G.FEEADV	advisory fee
G.INC	income
G.INT	interest
G.INTACC	accrued interest
G.OPE	opening cash
G.RCV	receive
G.RCVINC	received income

- Refer to the EDCOA Class Code in the (2) Bookkeeping Section
- Client is also responsible for setting up EDGALACCTMAP (see New Account Report section)

Throughout this document, any references to

- ABC, abc is the Sponsor's SNAM
- XYZ, xyz is the Manager's SNAM

Chapter 3: Overnight Process Reports

This chapter covers:

The eight reports as a result of the Overnight Processing:

- New Accounts
- Bookkeeping
- Cash Reconciliation
- Position Reconciliation
- Account Audit
- Wash Sale Restrictions
- General Ledger Reconciliation
- UMA Functionality

3.1 New Account Report

Functionality

GALAXYNEW is the function designed for the New Account functionality. It adds the shell account, name and address information if the account number is not found on APL. Data is loaded into the fields as directed by the mapping tables listed below. Opening cash posted through POSTGL and securities are also loaded into the account through a TRADESNEW batch.

Note: GALAXYNEW is able to load UMA shadow accounts based on manager sleeves in UMA accounts at the sponsor. See [New Account Load Process for Shadowed UMA Accounts](#) for further information specific to UMA shadow accounts.

Configuration Available

The following is a list of configurable items for the Galaxy New Account functionality:

- Option to use EDGALACCTMAP to load certain fields specific to each sponsor or globally
- Option to use EDGALACCTMAP to default certain fields specific to each sponsor or globally
- Option to load investment strategy codes from Trade Network sponsors based on mapping in EDITGALINV

Note: This option must be enabled by InvestCloud.

- Option to load money market funds from sponsor to manager

Mapping Tables

The mapping tables are created by the client. Use NEWACMAP or EDGALACCTMAP command function.

NEWACMAP command function:

1. At the APL Expert WHICH FUNCTION: ? prompt, type NEWACMAP and press ENTER

```
WHICH FUNCTION: ? NEWACMAP
```

The Relationship Menu will appear.

```
PORTVUE - PUBLIC MENU4.0
RISC 6000 DEMO DIRECTORY - DIALOG
                                RELATIONSHIP MENU
                                -----
-----
1. FIDELITY
2. GALAXY
3. MERRILL LYNCH
4. MSDW
5. PRUDENTIAL
6. SMITH BARNEY
7. RAYMOND JAMES
8. PAINE WEBBER
```

2. Choose option #2 - Galaxy (Trade Network) and press ENTER

The Function Menu will appear.

```
PORTVUE - PUBLIC MENU4.1.0
RISC 6000 DEMO DIRECTORY - DIALOG
                                     GALAXY
                                     -----
FUNCTION MENU
-----
1. SET UP DEFAULTS AND MAPPING
```

3. Choose option #1 (only option) - Set Up Defaults and Mapping and press ENTER

The Galaxy (Trade Network) New Account Mapping/Template Editor will appear

```
Galaxy New Account Mapping/Template Editor
Select an Option
ESC to Exit
-----
Edit Default Field/Value Templates
Add Sponsor Mapping
Disable Mapping
```

4. Select Edit Default Field/Value Templates and press ENTER.

|

5. Press F7 for a generic list of templates
6. Select SYSTEM GENRC APL and press ENTER

The GAL New Account Field Mappings will appear.

|

7. Press F1 for list of available fields

- Using the arrow key (on your keyboard), scroll down to the field you want and press ENTER

Notes:

- These fields are defined in the APL Account Master - located in the back of this guide
- Always include values for the DESBRK and RR fields in the new account field mapping table. DESBRK is used in the Trade Network account match process to identify new accounts. If recently added accounts do not have a valid value in DESBRK there is a chance of duplicate accounts being created

- Tab over to the Value column and enter the value of the field

Galaxy New Account Templates	
Sponsor:	Title:
SYSTEM GENERC APL	00:00 GENERIC ACCOUNT FIELD MAPPING
SYSTEM SHRMAN APL 01/08/08 11:48	GENERIC ACCOUNT FIELD MAPPING
SYSTEM AST APL 01/02/08 11:04	GENERIC ACCOUNT FIELD MAPPING
SYSTEM XYZ APL 12/21/07 15:31	GENERIC ACCOUNT FIELD MAPPING
SYSTEM ABC APL 12/21/07 15:27	GENERIC ACCOUNT FIELD MAPPING

Select Template and Highlight your Choice

F1-Help F3-Quit F7-List Templates F10/Return-Co

- Repeat the above three steps (7-8-9) until all your fields are selected and values entered
- When done, press F10 to save

The Are You Sure You Want to Exit and Save ? prompt will appear.

Are You Sure You Want to Exit and Save ?
NO
YES

- Select YES and press Enter
- The ENTER MODEL NAME (RET FOR SAME) prompt will appear.

ENTER MODEL NAME (RET FOR SAME) ABC

- Enter a three or six character model name

- For traditional SMA accounts, enter the three letter name of the sponsor and press Enter
- For UMA shadow accounts, enter the three letter name of the sponsor plus “UMA” and press Enter. Including “UMA” in the name designates it as the template to use for UMA shadow accounts originating from that sponsor

For example: If the sponsor acronym is ZZZ, then the UMA Template Name should be ZZZUMA.

14. The UMA Data will be loaded into the fields as directed by the mapping table

Note: One template per Trade Network sponsor for traditional accounts and one template per Trade Network sponsor for UMA shadow accounts can be set up.

The ENTER MODEL TITLE (RET FOR SAME) prompt will appear.

```
ENTER MODEL TITLE (RET FOR SAME)
```

15. Press Enter. The description field will be populated once it is saved
16. Press Esc until the APL Expert WHICH FUNCTION:? prompt will appear

The EDGALACCTMAP function adds name, address, etc. to Infodex from Sponsor to Manager. This is an optional process.

EDGALACCTMAP command function using Add Sponsor Mapping:

1. At the APL Expert WHICH FUNCTION:? prompt, type EDGALACCTMAP and press ENTER

```
WHICH FUNCTION: ? EDGALACCTMAP
```

The Galaxy (Trade Network) New Account Mapping/Template Editor will appear.

```
Galaxy New Account Mapping/Template Editor
Select an Option
ESC to Exit

Edit Default Field/Value Templates
Add Sponsor Mapping
Disable Mapping
```

2. Select Add Sponsor Mapping and press ENTER

The Which Sponsor Mapping Do You Want to Add? prompt will appear.

```
Which Sponsor Mapping Do You Want to Add?  
|  
ESC to Exit  
-----  
DRC  
EMC  
NMS  
Global
```

3. Use the arrow key to scroll down to the Sponsor you want to add and press ENTER

The Galaxy (Trade Network) Account Master Mapping will appear.

```
Galaxy Account Master Mapping  
For ██████  
Last Updated on 01/08/2008  
-----  
Sponsor  APL  
Field    Field    Description  
-----  
ADVARR   ADVARR  
LNAME1   LNAME1  
LNAME2   LNAME2  
LNAME3   LNAME3  
LNAME4   LNAME4  
ADDR1    ADDR1  
ADDR2    ADDR2  
ADDR3  
CITY  
STATE  
ZIP  
PHONE  
FAX
```

4. Tab over to the Description column and enter the data/text/value
5. Press F10 to save
6. Press F3 to exit. The Are You Sure You Want to Exit and Save? prompt will appear

```
Are You Sure You Want to Save Any Changes Made ?  
-----  
NO  
YES
```

7. Select YES and press Enter

The Galaxy (Trade Network) Account Master Mapping for [Sponsor] is Saved prompt will appear.

8. Press Esc key until returning to the APL Expert WHICH FUNCTION: ? prompt

EDGALACCTMAP command function to populate EDAC fields:

Note: To populate default EDAC fields, use Edit Default field/Value Templates.

1. At the APL Expert WHICH FUNCTION:? prompt, type EDGALACCTMAP and press ENTER

```
WHICH FUNCTION: ? EDGALACCTMAP
```

The Galaxy (Trade Network) New Account Mapping/Template Editor will appear.

```
          Galaxy New Account Templates
Sponsor:      Title:
|
Select Template and Highlight your Choice
F1-Help F3-Quit F7-List Templates F10/Return-Go
```

The Galaxy (Trade Network) New Account Mapping will appear.

2. Select Edit Default Field/Value Templates and press ENTER
The Galaxy (Trade Network) New Account Templates will appear.

```
          Galaxy New Account Templates
Sponsor:      Title:
SYSTEM GENERC APL      00:00 GENERIC ACCOUNT FIELD MAPPING
SYSTEM ABC      APL 02/01/08 15:59 GENERIC ACCOUNT FIELD MAPPING
```

3. Press F7 for a generic list of templates
4. Select SYSTEM ABC and press ENTER

The Edit or Delete Mapping prompt will appear.

```
Edit or Delete Mapping for ABC
EDIT
DELETE
```

5. Select EDIT and press ENTER. The GAL New Account Field Mappings appear with default fields (and values)

GAL New Account Field Mappings	
Field	Value
DESBRK	DIRECT
RR	4
BANK	STATE
VEHICL	FORD
SOCIND	ENERGY
FEEAGR	STAND
OBJECT	SMALL

6. Use this function to change values, add/delete fields
7. Press F10 to save. The Are You Sure You Want to Exit and Save ? prompt will appear

```
Are You Sure You Want to Exit and Save ?  
-----  
NO  
YES
```

8. Select YES and press Enter. The ENTER MODEL NAME (RET FOR SAME) prompt will appear

```
ENTER MODEL NAME (RET FOR SAME) ABC
```

9. Press Enter to use the same name. The ENTER MODEL TITLE (RET FOR SAME) prompt will appear

```
ENTER MODEL TITLE (RET FOR SAME)
```

10. Press Enter and the description field will be populated once it is saved. The Replace Account Mapping for Style [Sponsor] prompt will appear

```
Replace Account Mapping for Style ABC
-----
NO
YES
```

11. Select YES and press Enter
12. Press Esc key until you are back to the APL Expert WHICH FUNCTION:? prompt

Output Reports

Output reports for the Trade Network New Account functionality display all new accounts and securities that are added to APL.

How to Interpret the New Accounts Report

This report indicates all New Account transactions received.

Section - NEW ACCOUNTS ADDED and NEW UMA SHADOW ACCOUNTS ADDED

- OLD SNAM
- OLD BWNUM
- OLD OLDAC
- OLD DTCNO
- NEW SNAM
- MSPMOD - UMA submodel SNAM either from the sponsor, or if the Sleeve Mapping Table is employed, the manager sleeve that corresponds to the sleeve on the sponsor (manager shadow accounts only)
- MSPACT - UMA account SNAM from the sponsor UMA account (manager shadow accounts only)

- * - a note for client to act upon

```

12/28/07  4:09 A.M.                HOLLYWOODHILLS MANAGED ACCOUNTS
PAGE 1

                                << REPORT FROM GALAXYNEW >>
                                << XYZ FINANCIAL SERVICES >>

NEW ACCOUNTS ADDED
-----
OLD SNAM      OLD BNUM      OLD OLDAC  OLD DTCNO  NEW SNAM
-----
H74914              0              0 74934641  Z00003

* Please run SCREENAC for the new accounts to shell info
  Run EDAC to change/populate other AC fields
    
```

```

11/21/14  1:12 P.M.  XYZ MANAGEMENT
                        REPORT FROM GALAXY NEW
                        XYZ ADVISORS

NEW UMA ACCOUNTS ADDED

OLD SNAM      OLD BNUM      OLD OLDAC  OLD DTCNO      NEW SNAM  MSPMOD  MSPACT
-----
SNAM22              22222226  Z00023  SLVJJJ  SNAM22
SNAM22              22222226  Z00024  SLVKKK  SNAM22
    
```

Section - NEW SECURITIES ADDED

- CUSIP - CUSIP number
- ISSTY - Issue type
- CLSEP - Closing price
- INDIV - Indicated dividend
- TICK - ticker symbol of the security
- DESC - description of the security

```

NEW SECURITIES ADDED
-----
The following unknown securities will be added:

CUSIP      ISSTY      CLSEP      INDIV  TICK  DESC
-----
927800GW6  50        100.000  0      A71833  VIRGINIA ED LN AUTH GTD STUDEN 5.55 9/1/10
207714AF3  50        110.784  0      A71831  CONNECTICUT ST SPL OBLIG PKG 6.5 7/1/18
20774LB53  50        107.611  0      A69452  CONNECTICUT ST HEALTH & EDL 5.0 11/1/16
57563RCS6  50        104.194  0      A69446  MASSACHUSETTS EDL FING AUTH ED 5.1 7/1/17
915183LR6  50        102.526  0      A69443  UNIVERSITY UTAH UNIV REVS 7.8 10/1/07
401766NQ9  50        102.145  0      A69441  GUILFORD CONN 4.5 8/15/19
    
```

Identification of New Accounts

New Accounts will be identified in the daily recon reports with SNAMs such as Z0001, Z0002, Z0003 etc.

- If the sponsor and manager use the SNAM as the matching account identifier, the above identifiers will not be used
- The SNAM sent directly by the sponsor is what will load on the manager side. Changing the SNAM on the manager side will cause a new account to load

To update the new accounts SNAM, use the EDMISC command function in APL Expert.

EDMISC command function:

1. At the APL Expert WHICH FUNCTION:? prompt,type EDMISC and press ENTER
2. The system responds with the SEARCH FOR WHAT? prompt
3. Enter the SNAM and press Enter
4. The number of records found will be displayed and it will prompt you for the NEXT OPERATION

```
WHICH FUNCTION: ? EDMISC
EDMISC
212204 ACCOUNTS CURRENTLY ON FILE
SEARCH FOR WHAT? Z00002
1 RECORDS FOUND
NEXT OPERATION (HIT RETURN WHEN DONE, OR TYPE HELP):
```

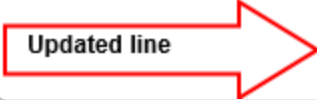
5. Press Enter
6. The EDMISC editor is started and this screen will appear

```
(0)
(1) RR  SNAME  A/C NUM  CASH          TRDATE  SELL BRK#  DTC A/C #
(2) ---  -----  -
(4) +P
```

7. Type [P and press Enter. Use the arrow keys to move to the fields to change and type over the existing data and press Enter

```
(1) RR  SNAME  A/C NUM  CASH          TRDATE  SELL BRK#  DTC A/C #
(2) ---  -----  -
(4) +P
(0)
(1) RR  SNAME  A/C NUM  CASH          TRDATE  SELL BRK#  DTC A/C #
(2) ---  -----  -
(3) 500 Z00002 75160588 0.00          00/00/00 2 0  BLANKBLANK
(4) █
```

8. At the end of the row, press Enter when you are done



```
(1) RR  SNAME  A/C NUM  CASH          TRDATE  SELL BRK#  DTC A/C #
(2) ---  -----  -
(3) 500 Z00002 75160588 0.00          00/00/00 2 0  BLANKBLANK
(3) 42 SHRM  51670333 0.00          00/00/00 2 0  BLANKBLANK
(4)
```

9. Type [Q and press Enter to save the changes that were made
10. Type [Q and press Enter to exit the function

3.2 Bookkeeping

Functionality

INTF^GALAXYPOSTGL is the function designed for Bookkeeping processing functionality. It processes:

- cash receives and delivers
- security receives and delivers
- dividend payments
- interest payments
- fee transactions
- other miscellaneous cash transactions

Configuration Available

Configuration of transaction processing within the Bookkeeping functionality is controlled through the EDCOA (Edit Chart of Accounts) table. The EDCOA table will be established based on a generic configuration. A copy of this information can be provided upon request.

- EDCOA table codes

G.DIV	Dividend
G.DIVRNV	dividend reinvestment
G.DLV	Deliver
G.DLVINC	deliver income
G.FEEADV	advisory fee
G.INC	Income
G.INT	Interest
G.INTACC	accrued interest
G.OPE	opening cash
G.RCV	Receive
G.RCVINC	received income

The valid transaction class codes for the Trade Network Interface are listed below:

EDCOA Trade Type Code	Class Code Description
IGNOR	Will ignore the transaction completely. This transaction will not post, will not reconcile and will not appear on the report.
REGL *	Used to reconcile to transactions already processed in EDGL. REGL will compare the data posted by APL with the data on the feed. If the information in the files does not match the information posted in APL, these discrepancies will appear on the report.
CHECK *	Used for cash transactions that should be posted into EDGL. CHECK will automatically post the transaction from the feed to the general ledger.
CHEC2 [only seen on a report]	Used for cash transactions that should be posted into EDGL, but separates the transactions into a separate report.

* REGL and CHECK controls from where dividends are posted.

There are two options:

- Post from APL
- Post from Sponsor with which you are connected

In addition to EDCOA, the Bookkeeping Transaction Processing functionality has the option to:

- Turn on the pending withdrawal functionality
- Set a tolerance for pending withdrawal entries
- Allow partial withdrawals or overdrafts
- Add unknown securities
- Turn off the duplicate check for GL postings
- Change filename at creation point
- Have an account selection prompt:

Example:

- DESBRK EQ ABC (Sponsor Code)
- RR LT 99

Mapping Tables

There are no mapping tables within the Trade Network Bookkeeping Transaction processing functionality.

Output Reports

The standard output reports for the Trade Network Bookkeeping Transaction processing functionality are:

Report Name	Report Type	Description
XYZ-----PRT	Bookkeeping	Displays all transactions processed from the Sponsor file in APL. It also lists transactions that were not processed due to invalid security, account or transaction code.
XYZ-----PRT	Bookkeeping	Displays all transactions from the Sponsor file where the transaction code in EDCOA is set to CHEC2 and posted to EDGL. This allows the user to separate transactions into different reports.
CHMDK.PRT	POSTGL File Report	Displays all transactions from the Sponsor file where the transaction code in EDCOA is set to REGL, reconciled against existing transactions in APL. The transactions not found in EDGL are put in the report for review and manually processing through POSTGL.

How to Interpret the Bookkeeping Report

This report indicates all Bookkeeping transactions received from a Custodian and processed on APL.

Section - CHECK TRANSACTIONS

1. Displays number of records received from the custodian
2. DUP - precedes the transaction line
 - The entry is considered a duplicate entry - the transaction was already posted in the GL
 - These transactions will not be posted
 - Only new transactions are posted through bookkeeping
 - These transactions should be investigated to verify that they are duplicates

Sample Bookkeeping Report - Check Transactions Section

Check Transactions

1XYZBOK.LRP
12/28/07 4:10 A.M.

8 CHECK TRANSACTIONS
SUMMARY OF SELECTED CODES:G.DLV G.RCV
ENTRY DATE: 12/27/07

G.DLV	882175304	(3127795)	CDW	(A82742)	0	0	-13.37	*ESTEE LAUDER
PND G.DLV	000000BLANK	(13321)	CDW	(A84382)	0	0	-4000.00	*CHECK ISSUED
G.DLV	882175304	(3127795)	CDW	(A85772)	0	0	-20.33	*ESTEE LAUDER
G.DLV	882175304	(3127795)	CDW	(A85772)	0	0	-20.33	*ESTEE LAUDER
G.RCV	882175304	(3127795)	CDW	(A85772)	0	0	20.33	*ESTEE LAUDER
G.DLV	882175304	(3127795)	CDW	(A89475)	0	0	-9.41	*ESTEE LAUDER
PND G.DLV	000000BLANK	(13321)	CDW	(A89551)	0	0	-9400.00	*CHECK ISSUED
G.RCV	000000BLANK	(13321)	CDW	(A83835)	0	0	1052.05	*TRANSFER CASH

BALAN

A82742	DLV	G.DLV	3127795	12/27/07	0		-13.37	*ESTEE LAUDER
A84382	MEMO	G.DLV	13321	12/27/07	0		-4000.00	*CHECK ISSUED
A85772	DLV	G.DLV	3127795	12/27/07	0		-20.33	*ESTEE LAUDER
A85772	DLV	G.DLV	3127795	12/27/07	0		-20.33	*ESTEE LAUDER
A85772	RCV	G.RCV	3127795	12/27/07	0		20.33	*ESTEE LAUDER
A89475	DLV	G.DLV	3127795	12/27/07	0		-9.41	*ESTEE LAUDER
A89551	MEMO	G.DLV	13321	12/27/07	0		-9400.00	*CHECK ISSUED
A83835	RCV	G.RCV	13321	12/27/07	0		1052.05	*TRANSFER CASH BALAN

AVAILABLE TRDTYS:
OPE OPESTL CLO RCV DLV TFR INT INTACC DIV INC FEEADV FEETAX DIVRVN TAXFEE DLVIN
C RCVINC PRI MEMO MSPRCV MSPDLV
?
(3)
(OP2
(0) INCOME CASH LEDGER
(1) SNAM/BWNH TRDTY TICK SACUS/CUS DATE UNITS \$ AMOUNT DESCRIP
(2) -----
(3)
(P
(0) INCOME CASH LEDGER
(1) SNAM/BWNH TRDTY TICK SACUS/CUS DATE UNITS \$ AMOUNT DESCRIP
(2) -----
(3) A82742 DLV G.DLV 3127795 12/27/07 0 -13.37 *ESTEE LAUDER
(4) A84382 MEMO G.DLV 13321 12/27/07 0 -4000.00 *CHECK ISSUED
(5) A85772 DLV G.DLV 3127795 12/27/07 0 -20.33 *ESTEE LAUDER
(6) A85772 DLV G.DLV 3127795 12/27/07 0 -20.33 *ESTEE LAUDER
(7) A85772 RCV G.RCV 3127795 12/27/07 0 20.33 *ESTEE LAUDER
(8) A89475 DLV G.DLV 3127795 12/27/07 0 -9.41 *ESTEE LAUDER
(9) A89551 MEMO G.DLV 13321 12/27/07 0 -9400.00 *CHECK ISSUED
(10) A83835 RCV G.RCV 13321 12/27/07 0 1052.05 *TRANSFER CASH BALAN
(11)
(Q

Section - DIV/INT ENTRIES RECONCILED

1. Displays all Custodian transactions processed by the automatic POSTGL process, indicating how each Custodian transaction was translated into an APL GL transaction
2. Two results are displayed:
 - DK - indicates Don't Know. This means that no divided or interest payment with that amount and/or date was found in EDGL:
 - These are put into a DK file and are available to post in POSTGL by using the utility **READFILE

- BAD - indicates both APL and the custodian paid an income item on that date for that CUSIP, but the amounts differ:
 - These transactions should be investigated to determine why different amounts were paid

Section - MMF INTEREST TRANSACTIONS

1. Monthly Money Market transaction

Section - IGNORED TRANSACTIONS

1. Displays entries defined as IGNOR in EDCOA
2. These were NOT processed. These should be reviewed; a decision made as to whether or not EDCOA should be updated and the entries MANUALLY posted if appropriate

Section - TRANSACTIONS STILL NOT HANDLED

1. Displays entries that the custodian's transaction code is not defined in EDCOA or CUSIP does not exist on the manager's Security Master Files
 2. These were NOT processed. These should be reviewed; a decision made as to whether or not EDCOA should be updated and the entries MANUALLY posted if appropriate
- Or, if CUSIP is not found, security will need to be setup using the function ADDSEC or EDITSEC.

Section - TRANSACTIONS FOR UNKNOWN ACCOUNTS

1. Displays entries that were received from the Custodian for accounts that do not exist on APL
2. These should be reviewed to see if the account SHOULD exist on APL. Or, that were not included in the account selection
3. Update APL if appropriate

Sample Bookkeeping Report - displays the (five) aforementioned Sections

```
*****
2 DIV/INT ENTRIES RECONCILED
SUMMARY OF SELECTED CODES:G.INTACC
ENTRY DATE: 12/27/07
DK  G.INTACC 312710AB2 (4048844) CDW (A84382) 0 10 22.47 BATCH244 ON 12/28/07
DK  G.INTACC 312728QS8 ( 474150) CDW (A84382) 0 10 8.09 BATCH244 ON 12/28/07

DK'S WITH AN NDATE WITHIN 3 WEEKS OF TODAY POSTED AS A RCV
OTHER DK'S WRITTEN OUT TO FILE: CHMDK.PRT
*****
0 MMF INTEREST TRANSACTIONS:
SUMMARY OF SELECTED CODES:
ENTRY DATE: 00/00/00

*****
0 IGNORED TRANSACTIONS:
SUMMARY OF SELECTED CODES:
ENTRY DATE: 00/00/00
*****
0 TRANSACTIONS STILL NOT HANDLED:
SUMMARY OF SELECTED CODES:
ENTRY DATE: 00/00/00
*****
0 TRANSACTIONS FOR UNKNOWN ACCOUNTS:
SUMMARY OF SELECTED CODES:
ENTRY DATE: 00/00/00
*****
-
```

3.3 Cash Reconciliation

Functionality

GALAXYCASHRECONML is the function designed for the Cash Reconciliation processing. The functionality reconciles the cash balances on the Sponsor directory to that of the manager for each account.

Configuration Available

The following is a list of configurable items in the Cash Reconciliation processing with the option to:

- Round to the nearest whole dollar
- Create a downloadable .csv data file
- Use WCASH or W13321 instead of calculating cash on the fly
- Include ISSTY EQ 50 bonds in the cash value two (2) days before they settle

- Hard code sort by SNAM, MGR, Difference or RR
- Stamp RECASH with current price date if balanced
- Auto post cash difference not greater than \$999.00
- Load PCTDIF and CSHDIF fields
- Have an account selection prompt:

For example:

- DESBRK EQ ABC (Sponsor Code)
- RR LT 99

Mapping Tables

There are no mapping tables within the Trade Network Cash Reconciliation processing functionality.

Output Reports

The standard output reports for the Trade Network Cash Reconciliation functionality are:

Report Name	Report Type	Description
XYZ-----PRT	Cash Recon	Displays all cash outages between Sponsor and Manager. These entries need to be acted upon.
XYZ-----CSV	Cash Recon	This is a downloadable version of the recon report.

How to Interpret the Cash Reconciliation Report

This report displays discrepancies between cash balances reported in APL and reported by the custodian.

Fields Displayed

- SNAM - the short name
- OPEDT - beginning date the portfolio manager is responsible for the account
- AUDIT - Yes/No to indicate whether or not an audit was run and if there was a match
- RR - the RR number associated with this account
- DTCNUM - client account number
- FDTYPE - type of funds or investment strategy
- RECASH - the date that cash was last reconciled
- RECPOS - the date that the position was last reconciled
- [APL] CASH - cash held on manager's directory
- [CUSTODIAN] CASH - cash held on custodian's directory
- PENDING - any amount of pending withdrawal
- DIFFERENCE - the difference between APL cash and the Custodian cash

- Boxed area - summary of account outages sorted by amount ranges

```

PAGE 1
                                CASH RECONCILIATION BETWEEN
                                XYZ FINANCIAL SERVICES
                                AND
                                HOLLYWOODHILLS MANAGED ACCOUNTS
                                December 28, 2007
                                As of December 27, 2007
    
```

SNAM	OPEDT	AUDIT	RR	DTCNUM	PDTYPE	RECASH	RECPOS	XYZ CASH	ABC CASH	PENDING	DIFFERE
OUT OF 531:											
510 ACCOUNTS WERE EXACTLY MATCHED											
0 of accounts off 100,000.01 & over											
2 of accounts off 10,000.01 - 100,000											
11 of accounts off 1,000.01 - 10,000											
6 of accounts off 100.01 - 1000											
2 of accounts off 0.01 - 100											
ALL ACCOUNTS:											
A84382	09/07/05	YES	40	74463252	BALANC	12/25/07	12/27/07	5483.82	3239.43	0.00	2244.39
A84035	03/03/06	YES	40	64433592	BALANC	12/27/07	12/27/07	9712.54	9712.53	0.00	0.01
A88096	09/28/07	YES	40	33076016	BALANC	12/27/07	12/27/07	4619.25	4619.24	0.00	0.01
A87997	11/02/05	YES	40	64342232	BALANC	12/19/07	12/27/07	41327.32	13665.90	27661.42	0.00
A87409	09/28/05	YES	40	64670593	BALANC	12/07/07	12/27/07	9326.45	7826.45	1500.00	0.00

3.4 Position Reconciliation

Functionality

GALAXYPOSRECONML is the function designed for the Position Reconciliation processing. The functionality reconciles the positions on the Sponsor directory to that of the Manager for each account.

Configuration Available

The following is a list of configurable items in the Position Reconciliation processing and it has the option to:

- Create a downloadable .prn data file
- Hard code sort by SNAM, MGR, Difference or RR
- Stamp RECPOS with current price date if balanced
- Include unsupervised assets
- Reconcile fractional shares to four decimals
- Include or exclude ISSTY EQ 1
- Have an account selection prompt:

For example:

- DESBRK EQ ABC (Sponsor Code)
- RR LT 99

- Create un-posted batch of differences and display outages out to four decimal places

Mapping Tables

There are no mapping tables within the Trade Network Position Reconciliation processing functionality.

Output Reports

The standard output reports for the Trade Network Position Reconciliation functionality are:

Report Name	Report Type	Description
XYZ-----PRT	Position Recon	Displays all position outages in the configuration file. - Outages are grouped by account and need to be acted. - Exact matches are not listed.
XYZ-----CSV	Position Recon	This is a downloadable version of the recon report.

How to Interpret the Position Reconciliation Report

This report displays discrepancies between positions reported in APL and reported by the custodian.

Fields Displayed

- CUSIP - CUSIP number
- SYMBOL - ticker symbol of the security
- SACUS - APL security ID number
- APL Shares - number of shares/units recorded in APL
- CUSTODIAN Shares - number of shares/units in the Custodian directory
- DIFFERENCE - difference between APL position and the Custodian position
- DESCRIPTION - description of the investment/security

- Boxed item - This is the option that is shown when the client elected to have a trades batch for position differences

```

        POSITION RECONCILIATION BETWEEN
        XYZ FINANCIAL SERVICES
        AND
        HOLLYWOODHILLS MANAGED ACCOUNTS
        December 28, 2007
        As of December 27, 2007
    
```

```

MGR: CDW          SNAM: A84382   JAY L & SUSAN S STEWART
DTC: 64433592    RR: 40     BNUM: 0
BEGDTE: 06/30/05  OPEdT: 09/07/05  AUDIT: YES
RECASH: 12/25/07  RECPOS: 12/27/07  CHGDTE: 00/00/00  OLDNUM:
    
```

CUSIP	SYMBOL	SACUS	APL SHARES	XYZ SHARES	DIFFERENCE	DESCRIPTION
312710AB2	TBOFJ2	3127795	30.0000	20.0000	10.0000	U S TREASURY BONDS
312728Q88	TN8DR8	274555	30.0000	20.0000	10.0000	U S TREAS NTS

```

TRADES BATCH 229
NOTE: A TRADES BATCH FOR ALL POSITION DIFFERENCES ABOVE HAS BEEN CREATED.
PLEASE REVIEW AND EDIT THE TRADES BATCH AND POST IF NECESSARY.

REMEMBER: THAT WAS BATCH NUMBER 229
    
```

3.5 Account Audit

Functionality

GALAXYAUDIT is the function designed for the Account Audit processing. The functionality matches the accounts on the Trade Network file with the accounts on APL to determine if any accounts are missing.

Account identifier is pre-determined by the corresponding Trade Network Setup.

Configuration Available

The configurable item for the Trade Network Account Audit functionality:

- Option to ignore certain RR codes (example pending or unfunded accounts)

Mapping Tables

There are no mapping tables required for the Trade Network Account Audit functionality.

Exception: If the MISCODED STYLES section (in the Trade Network Audit Report) is requested, the EDITGALINV table is needed and the GALAXYAUDITNEW function is used.

Output Reports

The standard output reports for the Trade Network Account Audit functionality are:

Report Name	Report Type	Description
XYZ----- -.PRT	Account Audit	Displays all accounts which are not matched between the file from sponsor and manager on APL.

How to Interpret the Account Audit Report

This report displays accounts that are not on the Custodian directory, or accounts that are open on the Custodian directory but are closed or restricted on the APL directory.

Section - ACCOUNTS NOT ON MANAGER SIDE

1. Displays accounts that exist on Sponsor directory but not on the Manager directory

Section - ACCOUNTS NOT ON SPONSOR SIDE

1. Displays accounts that exist on Manager directory but not on Sponsor directory
2. Fields Displayed
 - MATCH ON DTCNO - shows account criteria for the match
 - DTCNO - client account number
 - SNAM - short name
 - RR - account status code
 - NDATE -date the account was added to the APL system
 - OPEDT -beginning date the portfolio manager is responsible for the account
 - CLODT - date account was closed
 - ACCOUNT LONG NAME - long name for the account

Section - MISCODED STYLES

1. Fields Displayed
 - Same as above with the additional fields of:
 - Sponsor Field
 - Manager Field
 - Account - short name

2. Boxed item - optional; it will appear if client uses the GALAXYSTYLEAUDIT function

```

12/28/07  4:11 A.M.           ACCOUNTS AUDIT BETWEEN          PAGE 1
                               SPONSOR
                               XYZ FINANCIAL SERVICES
                               AND MANAGER
                               HOLLYWOODHILLS MANAGED ACCOUNTS
                               RECONCILIATION AS OF December 28, 2007

2 Accounts Exist at Sponsor but Not on Manager
-----
XYZ SNAM=A82742(31333395) XYZ SNAM=A89475(31277795)

Match was done on: DTCNO
1 Accounts on Manager but Not on Sponsor
-----
DTCNO      SNAM      RR      NDATE      OPEDT      CLODT      ACCOUNT LONG NAME
-----
313333950  A82742   40      01/05/05   11/01/07   00/00/00   LETTERMAN INC

2 Miscoded Styles for Account found on Sponsor: XYZ
-----
DTCNO      SNAM      RR      NDATE      OPEDT      CLODT      XYZ FIELD=MGR      REG FIELD=STRUNV      ACCOUN
-----
31333395   Z00003   176    20071228      0          0 AST      BLANK              Z00003
31277795   Z00011   176    20071227      0          0 AST      BLANK              Z00011
*****
Summary Breakdown by Investment Value
Total Active Accounts from Sponsor file:
ABC      DERRQ    57
AST      NATIL   119
    
```

3.6 Wash Sale Restrictions

Trade restrictions posted to EDMEMO based on the Internal Revenue Service rule stating that losses on a sale of stock may not be used as losses for tax purposes (that is, used to offset gains) if the equivalent stock is purchased within 30 days before or 30 days after the sale.

- This pushes the wash sale restriction every night if client is setup for this option

Functionality

GALAXYRECVRST is the function designed for the capture of Wash Sale Restrictions that are posted on the Sponsor accounts. It will only post what is posted on the Sponsor side and does not create reports based on current sales.

Configuration Available

The configurable item for the Trade Network Restrictions functionality:

- Option to select how many dates back are reviewed for Wash Sale Restrictions

Mapping Tables

There are no mapping tables required for the Trade Network Restrictions functionality.

Output Reports

The standard output reports for the Trade Network Restrictions functionality are:

Report Name	Report Type	Description
GALAXYRST.LRP	Restrictions	Displays all accounts which had wash sale restrictions loaded by the Sponsor directory.

Wash Sale Report

This example restricts trading a security for a given period of time. For example, in order to avoid violating the Wash Sale rule, clients may not wish to purchase a security for 30 days. To use this restriction, enter the TODAY variable as part of a compound restriction.

```

ABC MANAGER COPR.
01/05/08  6:07 A.M.

          GALAXY TRANSFER OF WASH SALE RESTRICTIONS

SPONSOR: XYZ
ACCOUNT   RESTRICTION
-----
123456789 TODAY LTE 20080202*BUYS*TICK EQ AIG
123456789 TODAY LTE 20080202*BUYS*TICK EQ MSFT
123456789 TODAY LTE 20080202*BUYS*TICK EQ HOG
123456789 TODAY LTE 20080202*BUYS*TICK EQ TRH
123456789 TODAY LTE 20080202*BUYS*TICK EQ SEE
123456789 TODAY LTE 20080202*BUYS*TICK EQ C
123456789 TODAY LTE 20080202*BUYS*TICK EQ CMCSK
123456789 TODAY LTE 20080202*BUYS*TICK EQ DELL
123456789 TODAY LTE 20080203*BUYS*TICK EQ HOG
123456789 TODAY LTE 20080203*BUYS*TICK EQ CR
  
```

3.7 General Ledger Reconciliation

Also known as Cash Transaction Reconciliation

The report lists general ledger entries on Sponsor side, but not on Manager's side. It does not work in reverse. And, it is important for the client to take action after receiving this report.

Functionality

GALAXYRECRECON is the function designed to capture Back Dated general ledger entries. The function was designed to be add-on functionality to the general ledger posting feature. It creates a POSTGL file that can be posted if needed and can go back as many days as needed to capture stale or backed dated entries.

Configuration Available

Account selection is needed to run this function.

Mapping Tables

There are no mapping tables required for this function.

Output Reports

The standard output reports for the Bookkeeping - Back Dated functionality are:

Report Name	Report Type	Description
XYZTOABC.ADJ	Back Dated GL	POSTGL formatted file that can be used to capture missed or back dated entries from the Sponsor. Use this file to post by accessing the utility **READFILE.
XYZRECBIG.PRT	Transaction Reconciliation	Report that displays missing general ledger transactions.

How to Interpret the General Ledger Reconciliation Report

This report displays general ledger entries that are back-dated.

Fields Displayed

- SNAM - Sponsor and the short name
- TRADE TYPE - type of trade for this transaction
- TICK - ticker symbol of the security
- SACUS - APL security ID number
- TRANS DATE - date transaction occurred
- UNITS:
 - number of units if the transaction is a specific number of shares of a position
 - for cash transactions, it is zero
- AMOUNT - total dollar amount of transaction

- DESCRIPTION - description of the transaction

CASH TRANSACTION RECONCILIATION							PAGE 1
FROM 12/20/07 TO 12/27/07							
SNAH	TRADE TYPE	TICK	SACUS	TRANS DATE	UNITS	AMOUNT	DESCRIPTION
ABC	A08452	DLV	CASH-1	13321	12/24/07	0	-10000.00 *SYSTEMATIC WITHDRAW
XYZ	A86303	DLV	CASH-1	13321	12/24/07	0	-50000.00 *INTERNAL TRANSFER -
ABC	A86303	MEMO	CASH-1	13321	12/24/07	0	-50000.00 **INTERNAL TRANSFER
XYZ	A83750	DLV	CASH-1	13321	12/26/07	0	-166.00 *FED W/H NORMAL DIST
XYZ	A83750	DLV	CASH-1	13321	12/26/07	0	-784.00 *NORMAL RETIREMENT D
XYZ	A83750	DLV	CASH-1	13321	12/26/07	0	-50.00 *ST W/H RETIREMENT D
ABC	A83750	MEMO	CASH-1	13321	12/26/07	0	-166.00 **FED W/H NORMAL DIS
ABC	A83750	MEMO	CASH-1	13321	12/26/07	0	-784.00 **NORMAL RETIREMENT
ABC	A83750	MEMO	CASH-1	13321	12/26/07	0	-50.00 **ST W/H RETIREMENT
XYZ	A84573	DLV	CASH-1	13321	12/20/07	0	-850.00 *INTERNAL TRANSFER -
ABC	A84573	MEMO	CASH-1	13321	12/20/07	0	-850.00 **INTERNAL TRANSFER
ABC	A82742	DLV	CASH-1	13321	12/26/07	0	-4000.00 CLIENT WDRL 12/27/07
XYZ	A82742	DLV	CASH-1	13321	12/27/07	0	-4000.00 *CHECK ISSUED
ABC	A82742	MEMO	CASH-1	13321	12/27/07	0	-4000.00 **CHECK ISSUED
XYZ	A82742	INTACC	TN8DR8	274555	12/27/07	0	8.09 BATCH244 ON 12/28/07
XYZ	A82742	INTACC	TBOFJ2	3127795	12/27/07	0	22.47 BATCH244 ON 12/28/07

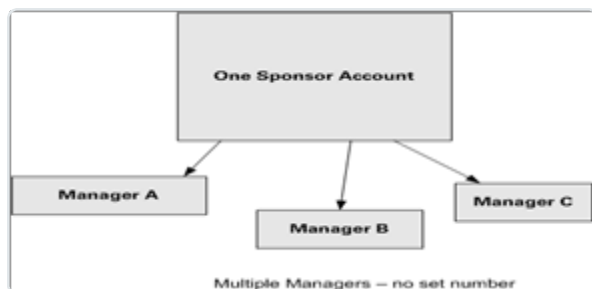
3.8 UMA Shadow Account Processing

UMA shadow account functionality allows a manager to maintain mirror (or shadow) accounts based on that manager's sleeves in sponsor UMA accounts.

Nightly batch processing for UMA shadow accounts can include:

- Adding new SMA account shells
 - New accounts are added as SMA accounts. The manager is responsible for converting them to UMA accounts if required
 - Name and address information loaded from the sponsor file
 - Sleeve information fields MSPACT and MSPMOD populated
 - Account Master fields populated with values as directed by the mapping defined for the UMA Sponsor from the Default Field/Value mapping templates
- Loading of new account opening cash balance and positions
- Assigning sleeve tags to UMA shadow accounts if applicable
- Transaction posting

- Reconciliation



New Account Load Process for UMA Shadow Accounts

There are two ways to create UMA shadow accounts. Accounts can be added manually or they can be added systematically using the existing Trade Network batch process used for traditional SMA new accounts.

Note: While automatically adding UMA shadow accounts is available to all InvestCloud Trade Network clients, configuration settings and adjustments to nightly batch processing are required. If you are interested in incorporating this functionality into your workflow contact your representative.

Automated New Account Load Process

GALAXYNEW is the function that is used in nightly batch processing to add traditional Trade Network accounts and, if configured, add Trade Network manager shadow accounts.

In addition to the standard Account Master data, the UMA sponsor account SNAM and sleeve SNAM are sent from the sponsor to facilitate the automatic opening of UMA shadow accounts. After the account shells, opening cash balances and positions have been added, the regular shadow account processing and maintenance processes kicks in.

In order for the UMA shadow account load process to run the following must be established.

- Sponsor and Manager must be configured for the UMA shadow account feature
- Sponsor must have the shadow manager mapped in the Trade Network table (EDGALRAPBRK)
- Sponsor must have BWNUM or DTCNO (NOT SNAM) as the Match Field in the Trade Network Table (EDGALRAPBRK)
- Sponsor must have manager sleeves mapped in the Shadow Manager Sleeve Table (MSP^SHADOWMGR^EDIT)
- MSPMOD (for sleeve SNAM) and MPSACT (for sponsor account SNAM) fields must exist in INFODEX
- The DESBRK (designated broker) field must be included in the UMA Default Field Value Template for the sponsor so that it is populated with a valid value during the add process. See the [Mapping Tables](#) section for step by step instructions on how to define templates

New Account Load Criteria

New shadow accounts are added by GAXAYNEW when:

- No manager accounts are found with matching values for MPSMOD and MSPACT combined and the DESBRK value is not equal to the value designated by the sponsor for that manager in EDGALRABBRK
 - If the manager uses the sponsor sleeve tags the process looks directly to the MSPMOD and MSPACT fields
 - If the manager maintains their own sleeve tags and uses the Sleeve Mapping Table to map the sponsor sleeve to the manager sleeve, the process uses the table to determine the proper manager sleeve tag then applies the match criteria to MPSMOD and MSPACT

Note: There could be more than one account with the same MSPACT field value if the manager is managing more than one sleeve in a sponsor UMA account. Therefore accounts with the same account ID with different Sleeve tags are NOT considered duplicate and are added.

Once the shell account has been opened, the holdings and cash will be loaded in the nightly processing.

Manual New Account Process

The manual UMA Trade Network Shadow New Account Process works differently than the Traditional Trade Network New Account Process where accounts shells are opened automatically.

In the UMA new accounts process, the manager is responsible for the opening of the account shell in a timely manner and the coding of the MSPACT and MPSMOD fields to properly load holdings and cash from the sponsor's side. These fields are used to match accounts between the sponsor and manager.

Steps for the UMA New Account Process:

1. After the Sponsor has opened a UMA new account, the manager then has seven (7) business days from the OPEDT on the Sponsor side to open the account shell manually
2. The manager must code the following fields of the new account:
 - The DESBRK field in EDAC: this must match the account selection that the manager has used to define the accounts for this program
Example: DESBRK EQ DMA
3. INFODEX fields: MSPACT and MPSMOD (which are accessible through the QUICK EDIT screen)
 - MSPACT field is coded with the SNAM of the Master account on the Sponsor's side. This information should be provided by the sponsor
 - The MPSMOD field is coded with the sleeve tag that is designated by the sponsor to identify the portion of the Master account that the manager is overseeing
 - The Client Database must also be coded since these fields are used in the matching process between Sponsor and Manager
4. Once the shell account has been opened, the holdings and cash will be loaded in the nightly processing
5. New accounts are picked up based on the DESBRK and OPEDT of the new account

- Example: DESBRK EQ DMA and OPEDT EQ CURRENT PRICE DATE
- All accounts that were open as new yesterday will be picked to load with holdings in EDGL and EDPORT. This information will be provided in the MSPAUDITNEW.PRT report

Troubleshooting tips:

1. If the EDGL and EDPORT transactions did not load for the new account:
 - Check the coding of the EDAC and INFODEX fields
 - If it is not coded correctly (e.g., wrong sleeve tag or SNAM coding) or at all, then you will need to change the OPEDT of the account to today's date so it can be loaded tomorrow
 - Or, the account on the Sponsor's side may be past the seven day window
 - If this is the case, then a CRMS ticket request is needed to the Client Interface Group for loading this information for you

CRMS ticket for: UMA Trade Network Shadow Set-Up

Client provides the following information:

- Sleeve tag the sponsor designated for the Manager code (defined by the Sponsor)
- The account selection on the Manager's side that they will be using to designate these accounts

UMA Trade Network Shadow Post

Functionality

INTF^MSP^SHADOWPOST - This function is designed to post EDGL and EDPORT transactions for existing accounts and new accounts added manually. Each sub manager shadow account must be coded with the corresponding short name and sleeve code on the sponsor side using the following INFODEX fields:

- MSPACT: sponsor UMA/MSP account short name
- MSPMOD: sponsor UMA/MSP account sleeve

These INFODEX fields are used by the shadow posting function to determine which sponsor transactions are posted to each sub manager shadow account.

Configuration Available

Configuration of transaction processing within the Trade Network UMA functionality is controlled through the EDCOA (Edit Chart of Accounts) table. Your EDCOA table will be established based on our generic configuration. A copy of this information can be provided to you at your request.

EDCOA gives you the ability to turn off auto posting of EDGL and EDPORT transactions based on transaction type.

Note: You will need to set the INTACC transaction code to REGL in EDCOA so that accrued interest is not duplicated in EDGL. TRADESNEW calculates the accrued interest for fixed income securities and posts the transaction to EDGL.

EDCOA: MSPINTACC REGL - INTACC ACCRUED INTEREST

MSP/UMA EDCOA table codes:

MSPDIV	CHECK	DIV	DIVIDEND
MSPDIVRNV	CHECK	DIVRNV	DIVIDEND REINVEST
MSPDLV	CHECK	DLV	DELIVER
MSPDLVINC	CHECK	DLVINC	INCOME DELIVERED
MSPFEEADV	CHECK	FEEADV	ADVISORY FEE
MSPINC	CHECK	INC	INCOME
MSPINT	CHECK	INT	INTEREST
MSPINTACC	REGL	INTACC	ACCRUED INTEREST
MSPMEMO	CHECK	MEMO	MEMO
MSPPOPE	CHECK	OPE	OPEN CASH BALANCE
MSPPRI	CHECK	PRI	PRINCIPAL
MSPRCV	CHECK	RCV	RECEIVE
MSPRCVINC	CHECK	RCVINC	INCOME RECEIVED
MSPTFR	CHECK	TFR	TRANSFER

The valid transaction class codes for the Trade Network UMA Interface are listed below:

EDCOA Class code	Class Code Description
IGNOR	Used to mark codes that should be ignored during processing
REGL	Used to reconcile to transactions already processed in EDGL
CHECK	Used for cash transactions that should be posted into EDGL

In addition to EDCOA, another configurable item to the UMA functionality is the:

- Option to create a report only and not post

Mapping Tables

There are no mapping tables within the Trade Network UMA functionality.

Output Reports

The standard output reports for the Trade Network UMA Functionality are:

Report Name	Report Type	Description
MSPSHADOWAUDIT.PRT	MSP Book-keeping	Displays all transactions processed from the Sponsor file in APL. It also lists transactions that were not processed due to invalid security, account or transaction code.
POSTGL.P00	POSTGL File	Data file that contains all the UMA cash entries to post.

How to Interpret the UMA Shadow Audit Report

Fields Displayed

- MSP SNAM - the UMA short name
- MSP Submodel - Sub-Manager ID
- DATE - transaction date
- TRADE TYPE - transaction trade type
- SECURITY ID - ticker or CUSIP
- UNITS - shares/units of this transaction

- AMOUNT - dollar amount of the transaction

```

MSPSHADOWAUDIT.LRP
01/03/2008 05:34 A.M.
File processed: '@HOLLYW'/SA/DEF/MSPSHADOWWXY2DSA.ASC'

No Matching Shadow Account
-----
MSP SNAM   MSP Submodel
-----
X13112     DSACOR
X21223     DSACOE
X74936     DSACOE
X74912     DSACGA

Cash Transactions
-----

POSTGL transactions found that do not match EDCOA

MSP SNAM   MSP Submodel   Date       Trade Type   Security ID           Units           Amount
-----
X55863     DSACGA         20080102   INTACC       CASH-1               1000.0000       8.38
X55863     DSACGA         20080102   INTACC       CASH-1               3000.0000       9.08
X55863     DSACGA         20080102   INTACC       CASH-1               5000.0000       15.56
X55863     DSACGA         20080102   INTACC       CASH-1               2000.0000       15.83
X55863     DSACGA         20080102   INTACC       CASH-1               2000.0000       16.18

No duplicate POSTGL transactions found

POSTGL transactions are in POSTGL.P00

Security Transactions
-----

See batch 555 for duplicate transactions

MSP SNAM   MSP Submodel   Date       Trade Type   Security ID           Units           Amount
-----
W99267     DSADLC         20080102   DLV          024568123            60.0000        4534.80
W99267     DSADLC         20080102   DLV          027891109            85.0000        4421.70
W99267     DSADLC         20080102   DLV          029876107            60.0000        3498.00
W99267     DSADLC         20080102   DLV          03847C106            17.0000         936.87
    
```

Chapter 4: Recon Re-run

The Recon Re-Run Welcome Guide and Recon Re-run Quick Reference Guide are on the following pages.

4.1 Client Welcome Guide

Introduction

The Recon Re-run Tool provides a front-end module that allows clients to request re-runs of custodial interface recon control jobs and Galaxy (Trade Network) recons.

The Client Interfaces Staff defines what recon jobs are available for the client to re-run. Jobs are only setup if it can be determined that only recon reports are in the job (meaning the recon job does not have any other posting functions in the job). The job must also not exceed 30 minutes of run time.

The script that starts the control job looks for the client submitted request every 20 minutes on the hour.

Example: 1:10 pm, 1:30 pm, 1:50 pm

This script and APL functionality is only available to the client between 7:00 am and 2:30 pm CST.

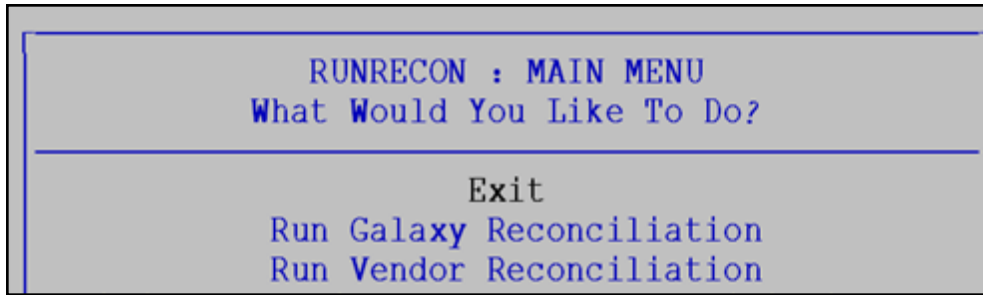
Screen Captures

1. Type APL command RUNRECON to call recon re-run master table

```

PORTVUE -- EXPERT MENU -- 0REMOTE MODE      12/31/09  9:34 A.M.
ACCOUNT MAINTENANCE FUNCTIONS:
SECURITY MAINTENANCE FUNCTIONS:
  ADDSEC          EDFEND          EDINDNM          EDSEC          ISSUE
  MOVESEC
CASH LEDGER/PERFORMANCE MAINTENANCE FUNCTIONS:
  CASHACT        CASHLEDGR        EDGL            EDPMSECT        EDPMSECT
  FIXGL          PMSECTAI        POSTDIVS        POSTGL          POSTPMSECT
REPORTS:
  ACTCOM        ACTIVITY        ACTIVSEC        BATCHLIST        BILLMON
  BWTX          CLTWDS          COMBINE         COMBONYC        COMMSUMM
  FIXWDS58      HO              INDSUM          LISTRR          MATREP
  MGRWDS        PMFIRMSECT      PMFIRMVAL       PMHISTSECT      RECWIM
  SKEDOLD       SUMPAR          TAXAGP          TAXHAY          TRANLET
  TRANPEN       TRANWDS         WHNOWNS        WHOWNL          XREF
WHICH FUNCTION: ? RUNRECON
PV M0
  
```

2. First Screen to appear displays three (3) options you can choose from



3. If option 1 - Run Galaxy (Trade Network) Reconciliation is chosen, the following dialog box will appear:
4. From here:
 - a. Choose to re-run cash, position or both
 - Choose one of these options, and it will ask a few questions before it generates the Trade Network recon report on the fly
 - b. Browse previously run reports
5. When selecting a Sponsor, a submit command adds the request to a queue that runs every 20 minutes on the hour
 - Choose an incorrect sponsor code, and receive an error. The previous menu will appear
6. Chose Option 2 - Run Vendor Reconciliation, and the following dialog box will appear with custodial interfaces
 - Select an interface, and a submit command adds the request to a queue that runs every 20 minutes on the hour
 - Regardless of which interface is selected, Vendor or Galaxy (Trade Network), for those clients that use Reconciliation Manager, the refreshed data will automatically flow over to the dashboard and will be available in your current view
 - Please allow a minimum of 20 minutes for the refreshed reports to appear on the dashboard
 - It will not overwrite the original cash or position exception reports. The original reports will be moved to Historical

Note: Only Client Interfaces Staff are able to add and delete interfaces from this list.

Client Facing Process Errors

1. The Rerun (rbac) Directory Is Not Setup

This error occurs when no set up for this product. Please contact Client Interfaces to correct.
2. The <interface name> has not completed processing yet to re-run recon

If this error occurs it is because the job has not completed for the day. The recon re-run process will not work until the nightly production job for this interface has completed.

3. The <interface name> Input File Does Not Exist
If this error occurs it is because the data file cannot be found. Please contact Client Interfaces to correct.
4. The <interface name> request is already submitted
If this error occurs it is because the job is running or has been submitted to run and client must wait for it to complete.
5. The recon rerun process has shut down for the day since it is after 2:30 CST
Recon re-run process has shut down for the day.
6. The <interface name> Ctl Job Does Not Exist
If this error occurs it is because the control job was not found. Please contact Client Interfaces to correct.
7. No Vendors Available For RUNRECON
Client is not setup for any custodial interfaces to have re-run. Please contact Client Interfaces to correct.

Commonly Asked Questions by Clients

1. Why is there a time limit on the recon re-run interface jobs setup?
The limitation was established to allow the Client Interfaces Staff to be able to manage the processing workload of large re-runs. It doesn't mean you are not able to re-run your recon, instead you just need to open a ticket to Client Interfaces.
2. Why was Galaxy (Trade Network) separated out and not just listed as one of my other custodial interface?
It was set up this way originally since the Galaxy (Trade Network) re-run did not use control jobs. However, this has been changed on the back end to work like the vendor interfaces. For expediency, we decided not to change the menu options.
3. Why does the file browser tool look different then the tool I use daily?
Most clients use HO to print data files and BROWSE command to view files. The browser tool being used is actually FLIST (which you can use daily as well):
At the WHICH FUNCTION? prompt, type FLIST.
4. Why do my Galaxy (Trade Network) reports look a little different then my nightly reports?
 - We have new versions of the Galaxy (Trade Network) recon processing with a few differences that the recon re-run process uses.
 - The main difference is that the new versions create a comma delimited file in addition to the .PRT file.
 - There are also some small report differences
5. Am I able to make any changes to the viewing or tables of the Recon Re-run tool?
The interfaces that are setup are configurable but the table and process itself does not support any changes.

6. Can I automate the running of the reports?

The recon re-run tool does not support any automation. It was created so that clients could run recon reports on the fly as needed.

7. Am I able to see if someone has already submitted a recon to process?

You are not able to see if any recons have been submitted but you will get an error if you attempt to submit the same recon that has been submitted and has not completed yet.

8. What is the expected time I should see my report?

- Once submitted to be run, the control job is placed into a queue to be picked up and processed.
- This automated system runs every 20 minutes
- The number of requests submitted will also impact the wait time since they will run in order.
- Users should be aware that the timing of the submission, as well as the size of the files, will determine the completion time

9. Can I add or remove an interface from the list of available interfaces?

You will need to open a ticket if you need to have an interface added or removed from the list.

10. Can anyone at my company use this functionality?

Yes. However, you should only instruct associates who will have need for this tool - to prevent others from requesting the recon to re-run.

4.2 RECON RE-RUN QUICK REFERENCE GUIDE

RUNRECON

The Recon Re-run Tool (RUNRECON) allows clients to submit recon re-runs of custodial interface recon control jobs and Trade Network recons.

- RUNRECON is only available to the client between 7:00 am and 2:30 pm CST
- The job must also not exceed 30 minutes of run time
- Submitted jobs run every 20 minutes on the hour. Example: 1:10 pm, 1:30 pm, 1:50 pm

Custodial Interfaces

- Submitted job will rerun overnight report and overwrite the previous report
 - At the Which Function? prompt, enter RUNRECON - press Enter. This will bring up the recon re-run master table
 - Select RUN VENDOR RECONCILIATION option - press Enter
 - Select desired interface report
 - For those clients who are set up to use Reconciliation Manager, updated reports will be available on the Dashboard. Please allow a minimum of 20 minutes for the refreshed data to appear in the Reconciliation Manager Dashboard
 - Reports will appear in client directory once job has completed
 - If you wish have this auto-populate to YES for new accounts, please contact your Account Consultant about modifying your new account interface

Note: All Vendor interfaces may not be available due to non reconciliation functions running in the current job. Please submit all inquiries to Client Interface via CRMS.

Trade Network Interfaces

- Submitted jobs run every 20 minutes on the hour. Example: 1:10 pm, 1:30 pm, 1:50 pm
 - Updated exception reports will be available in Recon Manager on the Dashboard in the current view
 - Original exception reports from overnight processing have moved to Historical
 - Does not overwrite previous report
 - No account selection needed:
 - At the Which Function? prompt, enter RUNRECON - press Enter
 - This will bring up the recon re-run master table
 - Select RUN GALAXY (TRADE NETWORK) RECONCILIATION option - press Enter
 - Select the CASH, POSITION, or Both reports to run
 - A table will appear; select a Sponsor (no need to enter Sponsor name & account)
 - For those clients who are set up to use Reconciliation Manager, updated reports will be available on the Dashboard
 - Please allow a minimum of 20 minutes for the refreshed data to appear in the Reconciliation Manager Dashboard...
- OR
- Once processing has completed, select BROWSE GALAXY (TRADE NETWORK) REPORTS and the following reports will appear:
- CSHRECON.LST
 - POSRECON.LSD

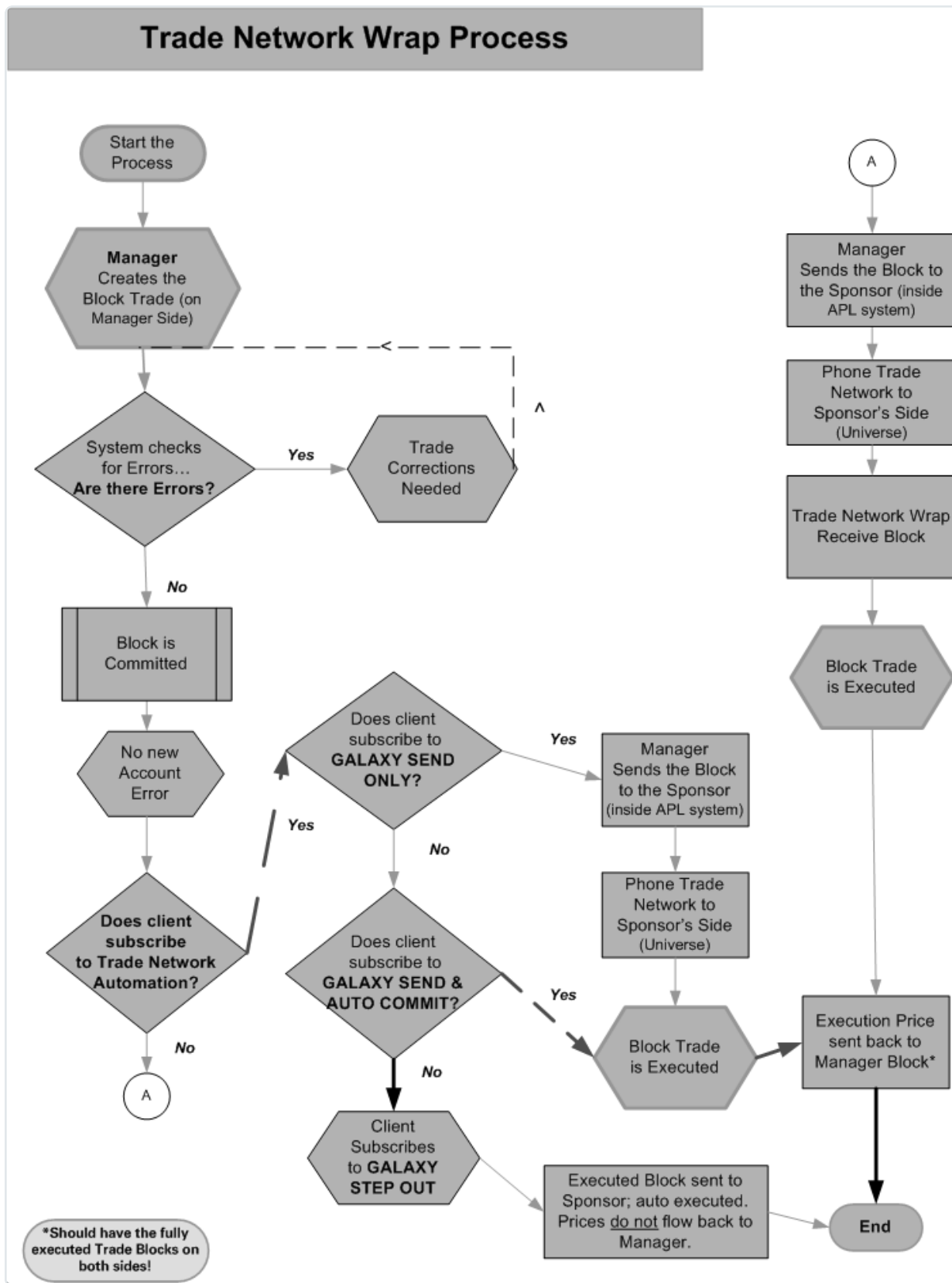
Chapter 5: Trade Network Order Management

5.1 What is it?

Trade Network (formerly Galaxy) is an Interface for APL clients participating in a WRAP program where the Broker/Dealer and/or Sponsor are also APL clients. It allows the Manager to shadow an account on their APL directory. The manager reconciles the account to the Sponsor directory daily with the help of the Overnight Process Report.

5.2 Main Benefit

- The Manager has complete control over the account to include it in performance composites and SEC reporting
- The Manager can use any customized functionality for trading and custom reports
The Trade Network Wrap Process consists of two steps:
- Overnight Processing Intraday Order Management Trade Network Wrap Process



5.3 Trade Network Order Management

The following steps describe the user workflow for the current non-automated setup. If client has been initialized for automation, most of these steps will not be necessary. Refer to section on Trade Network Automation.

1. Create and COMMIT block on XYZ (Manager directory)
2. Go to BLOCK ORDER STATUS
3. Select the block
4. Press Enter
5. Select GALAXY WRAP SEND
6. Exit BLOCK ORDER STATUS
7. Select Option G: ACCESS SPONSOR DIRECTORY

```
WHICH GALAXY LINK
-----
ABC > XYZ LOGIN TO ABC
ABC > XYZ LOGIN TO GHI
```

8. Trade Network Order Management_1Select Sponsor
9. Enter password to access Sponsor directory
10. Go to BLOCK ORDER STATUS (on Sponsor Directory)
11. Press Enter
12. Select RECEIVE GALAXY WRAP BLOCK
13. Commit the block on Sponsor directory
14. Sponsor enters execution prices on block
15. Follow the process for Partial or Full executions

5.4 Trade Network-Partial Execution

When Manager is on their own directory:

1. Create trade order block for the Sponsor program
2. Go to BLOCK ORDER STATUS and press Enter on the block
3. If the manager creates a block for multiple Sponsor programs, they will need to:
 - a. Select SEPARATE BLOCK BY BROKER before committing block
 - b. Press Enter on block and select COMMIT to commit the trade order
 - c. Press Enter on block again and select GALAXY WRAP SEND to send the committed block to Sponsor's directory
 - d. Select PHONEGALAXY to access the Sponsor's directory
 - e. Log into the Sponsor's directory using the password assigned by sponsor

When Manager is on Sponsor's directory:

1. Go to BLOCK ORDER STATUS and press Enter on the block
2. Select RECEIVE GALAXY WRAP BLOCK
3. Commit block on Sponsor's directory
4. Inform sponsor that a committed block is ready for execution

Sponsor:

1. Enter execution prices on block

When Manager is on the Sponsor's directory:

1. Go to BLOCK ORDER STATUS and press Enter on the block
2. Verify that block has been executed
3. Select SEND EXECUTION PRICES
4. Log off of the Sponsor's directory

When Manager is on their own directory:

1. Go to BLOCK ORDER STATUS and press Enter on the block
2. Select RECEIVE EXECUTION PRICES
3. Trades are updated on the account level via APL's end of day process

Executed Orders in Partially Filled Blocks

Executions can be sent from the Sponsor and received by manager automatically for orders that have been fully executed even though the block has not been entirely executed.

Sending fully executed orders can occur automatically regardless of how the execution occurred, either manually using an online execution tool or through an automated process.

5.5 Trade Network-Full Execution

When Manager is on their own directory:

1. Create trade order block for the Sponsor program
2. Go to BLOCK ORDER STATUS and press Enter on the block
3. If the manager creates a block for multiple Sponsor programs, they will need to:
 - Select SEPARATE BLOCK BY BROKER before committing block
 - Press Enter on block and select COMMIT to commit the trade order
 - Press Enter on block again and select GALAXY WRAP SEND to send the committed block to the Sponsor's directory
 - Select PHONEGALAXY to access the Sponsor's directory
 - Log into the Sponsor's directory using the password assigned by the sponsor

When Manager is on Sponsor's directory:

1. Go to BLOCK ORDER STATUS and press Enter on the block
2. Select RECEIVE GALAXY WRAP BLOCK
3. Commit the block on the Sponsor's directory
4. Inform the sponsor that a committed block is ready for execution

Sponsor:

1. Enter execution prices on block

APL:

1. Move the execution prices for fully executed blocks from the Sponsor's directory to Manager's directory

Manager:

1. You should verify that full executions are updated within their BLOCK ORDER STATUS

Note: The manager can review the Trade Network Reconciliation Reports the next day

5.6 Trade Network - Execution to Order Matching

Matching Criteria - Execution to Order Matching

When executions are received from the Sponsor, either manually or automatically, the execution to order matching process matches the sponsor executions to the manager orders. Once matched, the orders are executed.

For Managers with non-automated Trade Network, executions from the Sponsor are matched to Manager orders based on the following criteria:

- Side
- Tick
- SNAM (the specified matching account identifier is used to locate the SNAM)
- Sleeve
 - For SMA Managers the process matches on submodel SNAM stored in the MSPMOD account field in Infodex
 - For UMA Managers that maintain sponsor's sleeve tags the process matches on sleeve SNAM included in the trade
 - For UMA Managers that maintain their own unique sleeve tags and map their sleeve tags to the sponsor sleeve tags, the process matches sleeves based on the mapping table

For clients with Trade Network Automation, executions from the Sponsor are matched to Manager orders based on the criteria listed above and additionally:

- DESBRK
- Block ID

Error Messages - Execution to Order Matching Process

For Managers with the non-automated Trade Network, if the matching process cannot locate the order, the following error message is displayed:

No Corresponding Blocks found for the Following Wrap Sponsor Execution Prices

<transaction type> <security> <shares> at <price> for <account>

For Managers with Trade Network Automation, the following error messages may be generated:

- If the matching process cannot locate the manager order the following error message is displayed:

No Corresponding Blocks found for the Following Wrap Sponsor Execution Prices

<transaction type> <security> <shares> at <price> for <account> in <block ID>

- If the matching process finds the manager order in a block that the manager did not originally send the following error message is displayed

Corresponding Blocks found for the Following Wrap Sponsor Execution Prices

<transaction type> <security> <shares> at <price> for <account> in <block ID> located in <found Block ID>

Notes:

The <block ID> corresponds to the name of the manager's block that was originally sent.

The <found block ID> = the name of the block the orders were found in.

5.7 Automated Trade Network Order Management

This course of action applies to clients who have subscribed to the Trade Network Automation process.

The following covers the ability to send Trade Network eligible orders automatically to the appropriate APL Sponsor directories without logging into each sponsor directory.

Splitting of blocks is automatic by Sponsor. APL blocks will be received into the appropriate APL Sponsor directories each time a user successfully sends an APL block via one of the Trade Network auto send options.

For non-step out orders, successfully sent and processed, execution prices flow from APL Sponsor directory to APL Manager directory as orders are allocated using current functionality. End of day processing will ensure that allocations are posted into the Manager APL directory in a manner consistent with existing processes.

To automatically send Trade Network orders to the designated APL Sponsors, follow these steps:

1. Create and COMMIT block on XYZ (Manager Directory)
2. Go to BLOCK ORDER STATUS
3. Select the block

4. Press Enter
5. At the prompt, select one of the Trade Network send options:
 - TRADE NETWORK SEND ONLY
 - TRADE NETWORK SEND AND AUTO COMMIT
 - TRADE NETWORK SEND AND AUTO COMMIT AND ROUTE
 - TRADE NETWORK STEPOUT (manually executed blocks only)
6. The Sponsor Commit will run Compliance checks prior to any block separation so that the account is evaluated in its entirety
7. Commit prompts will be bypassed:
 - i.e., FIX Overrides are bypassed
 - “yes/no” prompts default to “yes” to facilitate automation for commit and route
 - All warning messages will be available to the Manager via the Monitor

Note: To select overrides, the Trade Network action should be SEND ONLY. Via manual Commit on the Sponsor directory the FIX overrides will be available.

Trade Network Auto Send Options

TRADE NETWORK SEND ONLY

- A trade order message is sent to each appropriate sponsor.
- When the “TRADE NETWORK SEND ONLY” is selected, an indicator will be included in the message to instruct APL to create the APL Block ONLY on the sponsor side
 - The block still needs to be committed and routed (this is NOT automated)
 - Sponsor specific behavior: due to unique configuration for Sponsor firms BPM and SCH, mutual fund orders should be extracted into separate blocks and the action should be SEND ONLY with Commit processed manually on the Sponsor directory

TRADE NETWORK SEND AND AUTO COMMIT

- A trade order message is sent to each appropriate sponsor.
- When the “TRADE NETWORK SEND AND AUTO COMMIT” is selected, an indicator will be included in the payload to instruct APL to Create and Auto Commit the APL Block on the sponsor side
 - The TRADE NETWORK SEND AND AUTO COMMIT feature does not apply to mutual funds

Note: Mutual Funds are excluded to avoid unintended Routing via auto-EOD processes when Commit only is the selected action. Mutual fund orders must be extracted prior to SEND AND COMMIT.

- The block needs to be routed (this is NOT automated)
- The auto-commit process will always separate the original trades into a new block, based on the sponsor splitting rules. Those orders are NOT maintained as duplicates in the “original” block. All that would remain are those orders that are not covered by the splitting rules

TRADE NETWORK SEND AND AUTO COMMIT AND ROUTE

The auto commit and route option is configured at the sponsor directory, at the sponsor's discretion.

- A trade order message is sent to each appropriate sponsor.
- When the "TRADE NETWORK SEND AND AUTO COMMIT AND ROUTE" is selected, an indicator will be included in the payload to instruct APL to Create and Auto Commit the APL Block on the sponsor side. The block will also be routed to the designated broker for execution
- This option does not accommodate trade rotation; manager blocks must be separated prior to routing straight through. Rotating trades/blocks across Sponsors requires SEPARATE BLOCK BY BROKER and subsequently MULTI COMMIT. Then SEND AND AUTO COMMIT AND ROUTE can be run per block

TRADE NETWORK STEP OUT

- Gives the ability to generate Step Out trades in their own APL directory for multiple sponsors at one time and automatically route those trades to the appropriate sponsors based on the set up of each account
- Recommended practice for Managers: run Sponsor pre-compliance via TRADE NETWORK SEND AND AUTO COMMIT before executing. This will eliminate potential Sponsor compliance issues if Commit is invoked after actual order execution
- On manually executed blocks, the TRADE NETWORK Step Out option will be available

TRADE NETWORK STEPOUT Eligibility Requirements:

- The TRADE NETWORK STEPOUT Eligibility Requirements will apply for APL TRADE NETWORK Manager initiated trades and External TRADE NETWORK Connect initiated trades
- Not all sponsors accept electronic step out executions
- APL will be required to check step out trades for TRADE NETWORK eligibility broken down by the asset types. This will be configurable by Client Code, DESBRK, and the Wrap Prog
- The issue types defined on the sponsor side will be used to determine the Asset Type
- Mutual Funds Step outs will not be eligible.
- The InvestCloud Administrator will be able to update the TRADE NETWORK Step Out options
- The TRADE NETWORK Step Outs Option default will be set to "N" for all Client Code/DESBRK

TRADE NETWORK STEP OUT Handling:

- When the TRADE NETWORK STEPOUT is selected, the APL block containing TRADE NETWORK eligible orders will automatically send step out trades to the appropriate APL Sponsor directories without logging into each sponsor directory.
- Mutual fund trades are excluded
- The APL Step Out Block must be fully executed

- Settlement Date

If a settlement date is not specified when a step out order is executed by the manager, a standard settlement date is systematically generated when the order is sent to a sponsor through Trade Network and posted on the sponsor side.

If there is a non-standard settlement date for the Step Out execution, the manager must post that to the block with the execution information.

- Exchange Code and Execution Type

For sponsor accounts held at Pershing, LLC only, the Trade Network manager step out order message contains Exchange Code and Execution Type values that support Pershing data requirements.

- Exchange Code value is defaulted based on current Asset Class definitions:
 - 1 for Equity
 - 4 for everything else
- Execution Type is set to either "MANUAL" or "PRIME" based on configuration settings for sponsors with Pershing accounts

Once the block has been executed, the Exchange Code and Execution Type are displayed on the Execution Report accessed from Block Order Status.

Trade Network Rules-based Splitting

Trade blocks can be split based on pre-established rules, according to sponsor routing requirements.

Splits can be based on:

- Destination (designated broker, bank code, etc.)
- Asset type (equity, fixed income, mutual fund, etc.)
- Special split processing by sponsor (on criteria such as order quantity)
- The auto-commit process will always separate the original trades into a new block, based on the sponsor splitting rules. Those orders are NOT maintained as duplicates in the "original" block. All that would remain are those orders that are not covered by the splitting rules

Trade routing rules are pre-configured by InvestCloud in consultation with the manager and sponsor.

Note: Sponsors that have custom split routines that cannot be accommodated by this level of commit and route automation are only eligible for Send Only until further development.

Trade Network Action Indicators

- Manager Trade Network Action Indicator
 - When a Trade Network Send action is performed, the indicator “T” is displayed next to the date at the block level in Block Order Status. This indicates that the block was sent.
 - When a Trade Network block is UNCOMMITTED the indicator “T” next to the Date is removed
 - This indicator does not confirm that the order was successfully received on the sponsor side. Please view the Trade Order Monitor to determine the state of the Trade Network message
 - No updates to the indicator are performed for unsuccessful Trade Network Send actions that can be determined on the manager side
 - If a Trade Network block does not have an indicator "T", the "T" is not added
 - If a Trade Network block has an indicator "T", the "T" remains
- Sponsor Trade Network Action Indicator
 - For Trade Network blocks sent by the Manager an indicator is displayed within in the Sponsor Block title
 - An indicator of “TN” indicates the block is a Trade Network block, except for Step Out blocks
 - An Indicator of “SO” indicates the block is a Trade Network Step Out block
 - The existing block naming process may append additional data into the block title

Trade Network Block Level Exception Check

- TRADE NETWORK Load Only, TRADE NETWORK Load Auto Commit or TRADE NETWORK Load Auto Commit and Route
 - If there is NO prior Manager's Block with the same block name, then the TRADE NETWORK receive process will continue with the Load Trade Block process
 - If the prior Manager's Block with the same block name has at least one trade in the Committed (including Routed or Executed) state, then the APL Block will not be loaded and an appropriate error message will be displayed

“Block Not Sent - Prior Manager’s Block with the same Block Name contains orders that were previously committed from the sponsor(s)”

- TRADE NETWORK Step Out
 - If there is NO prior Manager's Block with the same block name, then the TRADE NETWORK receive process will continue with the Load Trade Block process.
 - If there is a prior Manager's Block with the same block name that is in a Rejected state, then the TRADE NETWORK receive process will continue with the Load Trade Block process.
 - If there is a prior Manager's Block with the same block name that is in a COMMITTED state:
 - APL will bypass the Load and Auto Commit process (i.e., Do Not auto load and Commit)
 - APL will locate the sponsor's committed block relating to the prior Manager's Block with the same block name
 - APL will validate that the orders in the step out message matches EXACTLY to the Orders in the sponsor's committed block
 - If the orders are NOT IN SYNC, then Step Out Block instruction will be rejected. The COMMITTED BLOCK on the sponsor side will remain COMMITTED. An entry in the TRADE NETWORK table will be added with an appropriate warning or error message indicating that the Step Out failed
 - If the orders are IN SYNC, then APL will auto execute the COMMITTED BLOCK on the sponsor side
 - If there is a prior Manager's Block with the same block name where the state is Uncommitted, Routed or Executed for any trade, then the APL Block will not be loaded and an appropriate error message will be displayed

- All TRADE NETWORK Send Actions

- If the prior manager's block with the same block name has NOT completed processing, then the APL Block will not be loaded and an appropriate warning message will be displayed:

“Block Not Sent - Prior Manager's Block in Progress with the same Block Name”

- Unknown Account Exceptions

During the receive and load process of a manager's block on the sponsor side when an unknown account or an account that is found but is not in the current universe is identified, that account's trades are filtered out, allowing the load process to continue for the remainder of the orders in the original block.

Error notifications to the manager are displayed in the Trade Network Monitor so that appropriate action can be taken. Managers may need to manually edit the original block to remove the unknown accounts.

Error notifications:

- Unknown Accounts
ERRORUnknown accounts <ACCOUNT_ID> <list of unknown manager SNAMs>
- Accounts Not Included in latest window build
ERRORAccount(s) not included in latest Windows build <list of unknown manager SNAMs>

- Unknown Securities Exceptions

During the receive and load process of a manager's block on the sponsor side securities are identified and matched based on CUSIP. However, securities with issue types of 28, 29 or 37 (common stocks, preferred stocks, or foreign common stocks) are identified and matched based on CUSIP AND EXCH.

If a security is not found or a security with issue type of 28, 29, or 37 matches by CUSIP but not by EXCH, the block is rejected and error notifications to the manager are displayed within the Trade Network Monitor so that appropriate action can be taken.

Error notifications:

- Unknown Securities (no security with matching CUSIP found)
ERRORUnknown securities (CUSIP) <list of unknown CUSIPs>
- Securities with Issue type 28, 29, or 37 Exchange Code Mis-Match (matching CUSIP found but with EXCH mis-match)
ERRORExchange code mis-match (EXCH) <list of unknown CUSIPs>

Chapter 6: Trade Network Monitor

6.1 Overview

Manager clients who participate in the InvestCloud Trade Network Automation process can view the state of their trade orders sent to participating Sponsors/Brokers. Manager clients are able to identify all block level actions performed on trade orders sent to Sponsor/Broker Dealers.

Accessed from the OneView application, the monitor displays, in near real time, the state of trade orders transmitted from Manager to Sponsor via the Trade Network Automation process.

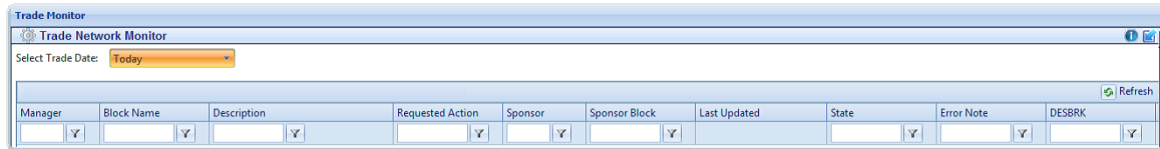
- Trade Network Monitor access permissions are controlled by User ID/Groups
- Trade Network Monitor can display the current day's trade orders and up to three business days of history
 - Trade orders for the current date are displayed by default
 - Trade orders from previous days can be viewed by selecting an historical date from a dropdown menu
- Trade Network Monitor automatically refreshes data at a configurable time interval
- The state of a block is designated as sent, committed, routed, executed (Step Outs ONLY), or rejected
 - Errors are categorized as states and correspond to the action attempted: send (rejected), load, commit, route or execute
 - The monitor displays errors, failures, and warnings or a token name to reference
 - When possible, summary and detail level error information is displayed in the monitor. This includes the list of accounts and/or securities in error
 - When an error is large (over 8,000 bytes [default]), the system displays a token name provided by InvestCloud in place of an actual error message. A user can log into the InvestCloud Sponsor and access failure and warning messages based on the token name
 - VIEW TRADE NETWORK ERRORS (WIND^BIGERRORVIEWER), in the sponsor trading menu, is the tool that displays large errors
- A manager user may need to log into a sponsor environment to view large error messages or address exceptions and orders that require non-standard handling
 - A link to each sponsor's login page is available from the Trade Network Monitor. InvestCloud manager clients must be configured to access each InvestCloud Sponsor client. If not configured, the sponsor link is not displayed
- Manager trade orders transmitted to non-Trade Network sponsors are not displayed
- Only automated actions are reflected in the Trade Network Monitor. For example: on a Send and Auto Commit message, the final status will be Committed in the monitor, even after the trader routes the order out for execution

Access Trade Network Monitor

To access the Trade Network Monitor follow these steps:

1. From the Applications menu, point to Trade Network and select Launch

The Trade Network Monitor displays manager blocks that have been transmitted by the logged-in user and corresponding Sponsor information..



Client users can view other blocks transmitted by other client users if permission to do so has been granted.

Data Displayed in the Monitor

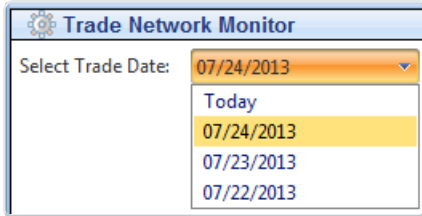
The following table describes the filtering criteria that determine the trades displayed in the monitor.

Data	Description
Manager	Manager's Client Acronym.
Block Name	Manager's Block Name.
Description	Manager's Block Description.
Requested Action	Manager's requested action: <ul style="list-style-type: none"> • SEND ONLY Manager orders sent to Sponsors. Sponsor block created, but not committed automatically.
	<ul style="list-style-type: none"> • SEND AND AUTO COMMIT Manager orders sent to sponsors. Sponsor block created and automatically committed.
	<ul style="list-style-type: none"> • SEND AND AUTO COMMIT AND ROUTE Manager orders sent to Sponsor. Sponsor block created, automatically committed and routed to the designated broker for execution.
	<ul style="list-style-type: none"> • STEPOUT Manager executed step out orders sent to Sponsor.
Sponsor	Sponsor's Client Acronym.
Sponsor Block	Sponsor's Block Name.

Data	Description
Last Updated	Date and time of the latest change in STATE.
State	<ul style="list-style-type: none"> • Sending • Sent • Loading • Loaded • Committing • Committed • Routing • Routed • Executing • Executed (step outs only) • Rejected • Load Error • Commit Error • Route Error • Execute Error (step outs only) • Empty/Split
Error Note	Error details or Error Reference (token).
DESBRK	Manager's DESBRK code.
Step-Out Broker	Broker code for a step-out broker. This broker type executes a trade order. However, the credit broker (another broker type) gets the credit and some of the commission for the trade.
Publish Time	Date and time manager block was sent to sponsor.
User	User ID that initiated the last STATE change.
Source	Contains "APL".
Errors / Warnings	Indicator for trade orders with errors.

Select Trade Date

Before you enter the criteria to filter the trades displayed in the monitor, select the date of the trade blocks to view.

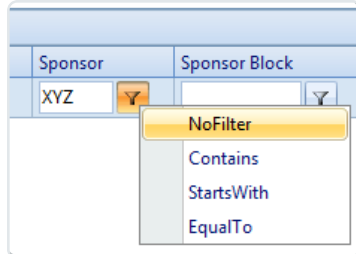


The default view contains blocks sent during the current day. An alternate date can be selected from the Select Trade Date drop-down list for one of the previous three business days.

Filter Data

To limit the trade orders/blocks displayed in the monitor:

1. Enter text in filter text entry box under the column heading of the data to filter
2. Click the filter icon to the right of the text entry box
3. Select a filter type on the list



- Contains - Display records that contain the entered text anywhere in the value
 - StartsWith - Display records that begin with the entered text
 - EqualTo - Display records that exactly match the entered text
4. To filter more records, repeat the process on additional columns
 5. To remove a filter on any column, click the filter icon and select NoFilter from the menu

Reorder Columns

Monitor columns can be reordered by clicking and holding a column header cell, then dragging it to the new location.

Sort Monitor Columns

Trade Orders listed in the monitor can be sorted by column in either ascending or descending order. Click the column header label to change the sort order.

Sponsor Login Button

Managers can navigate to the login page of a sponsor by clicking the sponsor link located in the row containing that sponsor's block.

6.2 Configuration Administration

Contact InvestCloud Client Services to define user access or change system settings.

User Access

The default view of Trade Network Monitor shows the state of blocks that have been transmitted by the logged-in user. Client users can view other blocks transmitted by other client users if permission to do so has been granted explicitly.

The client administrator is able to grant client user access and permissions. The client administrator can also view the state of all blocks transmitted from the client directory.

Data Refresh Frequency

The default refresh frequency is set to 120 seconds. Users can also manually refresh the Monitor.

Sponsor Links

A link is provided within the Monitor to easily allow the user to navigate to the sponsor log-on page, provided the Manager has access rights to each Sponsor.

Chapter 7: Trade Network Support of UMA

This chapter covers:

- Best Practices for setting up Trade Network for UMA Overlay Managers with Sponsors
- Known Issues

7.1 Best Practices

Trade netting:

- The overlay manager can only use trade netting if the sponsor also uses trade netting; otherwise, execution prices will not flow back to the manager from the sponsor

Tax sensitive tax lot swapping:

- The overlay manager can only use tax lot swapping if the sponsor is also using this option; otherwise, the tax lots will not be in synch between manager and sponsor. This will potentially cause VSP (.vs purchase) specific sales created by the overlay manager to fail to post on the sponsor side

Sleeve cash flows:

- Both overlay manager and sponsor must use the same cash flow method when running MSPPOSTGLFLOWS in the nightly batch process to make sure the accounts in both directories are in synch
- If the overlay manager flows sleeve cash manually or runs MSPPOSTGLFLOWS online, the overlay manager will need to make sure these flows are replicated on the sponsor directory by manually inputting the flows in the Sub Model Cash Adjuster in the sponsor directory

Master model codes

- Must be in synch on both directories to allow automatic Trade Network master model updates to flow overlay manager to sponsor when the INTF^GALAXYMOD and INTF^GALAXYPOSTMOD functions are set up

Sub model codes

- Must be in synch on both directories since the sub manager sends the trades to the sponsor with sleeve tags. To ensure that sub model security allocations are regularly updated from overlay manager to sponsor directory, the Manager to Sponsor Model Send functionality should be set up.

7.2 Known Issues

Trading

Background

- Managers in a standard Trade Network relationship have the ability to generate trades in their own APL directory for multiple sponsors at one time and automatically route those trades to the appropriate sponsors based on the set up of each account. This significantly adds to their efficiency since this eliminates the need to access each sponsor system separately to create trades
- Once the trades have been executed, the execution prices flow back from each sponsor automatically, and the executed trades are posted on the manager's directory as part of the POSTEOD process

Overlay Managers

Issue

- Keeping data in synch between the OPM and sponsor is the primary issue in this type of Trade Network relationship
 - Both OPM and sponsor must use the same master model and sleeve tags; however, this can be problematic since both sides may require different naming conventions for sleeves based on reporting needs
 - Any intra-sleeve transactions such as sleeve cash flows or security swaps among sleeves must be posted on both sides to ensure all sleeves are in synch. This can be problematic when the OPM must manually generate these transactions intra-day
 - There is currently no automated reconciliation process that highlights sleeve level reconciliation issues

Solution

- Sleeve level position and transaction reconciliation reports shall be developed to report on sleeve level reconciliation breaks between Trade Network overlay manager and sponsor
- A utility shall be developed to allow the OPM to send transactions representing sleeve cash flows or security swaps among sleeves to the sponsor.
- A utility shall be developed to map master model codes and sleeve tags between OPM and sponsor. This would enable each side to set up their own codes. This mapping shall be applied whenever trades, model changes, or any other transactions are sent between OPM and sponsor so that the codes can be properly substituted
 - For example: The OPM would send a block of trades to the sponsor initially with the OPM's sleeve tags. When the block of trades is received into the sponsor's directory, the OPM's sleeve tags would be replaced by the appropriate sponsor sleeve tags.

Sponsor-Manager Communication

Issues

Certain issues related to communication of information between sponsor and manager limit the efficiencies that Trade Network connectivity can provide in UMA programs. In cases where these enhancements would benefit both UMA and non-UMA programs, it has been noted.

Solution

- A utility shall be developed to accommodate cases where the sub manager must upload executed blocks from an outside tool when it is necessary to trade away from the sponsor (e.g. when using Perform to trade bonds).
 - The Trade Network send functionality shall allow a manager to send the executed block to the sponsor. (The current Trade Network-send functionality does not allow a manager to send executed blocks to a sponsor.)
 - Since this enhancement would be useful in both UMA and non-UMA programs, it shall be made available to both.
- To accommodate cases where the OPM / sponsor flows cash from one sleeve to another in a UMA account intraday, a utility shall be developed:
 - To send an intra-day alert to the sub manager that available cash for trading has changed
 - To update Windows cash on the sub manager directory for the affected accounts

Sub Manager Reconciliation

Background

The automated reconciliation features within Trade Network provide an efficient means for client to reconcile cash and positions within standard Trade Network relationships.

Issues

- Sub managers encounter a number of reconciliation issues when they shadow a sleeve from an APL OPM / Sponsor
- Transactions:
 - Backdated transactions are not captured and posted to the sub manager account
 - No bookkeeping report is available for sub manager shadow accounts
 - No report detailing missing backdated cash transactions or trades is available
 - Pending withdrawal functionality does not function for sub manager shadow accounts
 - Sponsor correction of transactions does not flow through to the sub manager account
- Cash: OPM / sponsor's changing of master model codes causes cash breaks for the sub manager which are difficult to trace
- Positions: There is no ability to filter out certain securities or security types from the position report

Solution

- The sub manager shall receive bookkeeping transactions from the sponsor for their specific sleeve similar to the INTF^GALAXYGL and INTF^GALAXYPOSTGL functions used for standard Trade Network relationships.
- This functionality shall include cash contributions and withdrawals related to sleeve cash flows generated by the OPM / sponsor
- This functionality shall allow posting for a date range which prevents duplicate transactions from posting
- Allowing the sub manager to trade on their directory and post trades using POSTEOD should address the issue of missing backdated trades. (Please refer to the Trading section.)
- A report shall be developed which compares the cash ledger and tax lot file for the sub manager account with the associated cash transactions and tax lots for the specific sleeve in the OPM / sponsor's UMA account
 - Any missing cash or security transactions within a selected date range shall be displayed.
 - A TRADESNEW batch and POSTGL file shall be automatically created containing the missing transactions.
 - There should be a configurable option to post the TRADESNEW batch or POSTGL file manually or to have these posted automatically
 - The report shall be sensitive to transaction corrections and list them in a separate section. If feasible, a utility shall be developed to facilitate deleting of the incorrect transactions and re-posting of the associated corrected transactions
- A utility shall be created for use by the OPM / sponsor which preserves historical sleeve cash allocation targets to prevent the sleeve cash breaks generated when the OPM / sponsor changes a UMA account's master model code
- The position report shall be enhanced to enable the sub manager to exclude certain securities or security types

Appendix A: Trade Network Glossary

These terms are important for you to familiarize yourself with as you learn the Trade Network process.

Trade Network - Interface for APL clients participating in a WRAP program where the Broker/Dealer and/or Sponsor are also APL clients.

Trade Network Wrap/SMA Send and Receive will transfer trade blocks between the Manager's directory and the Sponsor's directory:

- This enables the manager to trade on their own trading system, using their own custom trading tools, and sending the trades electronically to the sponsor
- Client would then log on to the Sponsor's APL directory (using sponsor provided login ID) and receive blocks sent to that directory
- The sponsor applies its own custom error checks before accepting or committing the block
- The account data is maintained in both places, enabling the manager to view these accounts along with all other accounts they maintain on APL
- The manager can generate reports that they are familiar with and may not be available in the Sponsor's directory

Galaxy Send - For managers involved in Wrap programs, it sends a block to the Wrap Sponsor (who administers the funds). This option is only appropriate after electronic links have been established.

Phone Galaxy - is a way for a Wrap Manager to avoid dialing into many different machines. It gives the money manager flexibility to access their multiple sponsor relationships and their respective APL directories.

- If the investment manager is an existing client of APL, this function will allow them to communicate with the Wrap Sponsor, an existing client of APL, while staying dialed in under their Manager ID
- This option is not accessible to the money managers who are non-APL clients (see description of Galaxy (Trade Network) Connect)

A.1 Additional Terms

Block Order - A trade order that may contain more than one security or more than one account. This will include all pertinent security and account information for execution purposes.

Block Order Status - Presents the tools needed to manage the various trades developed during the course of the trading day.

Custodian - An agent, bank, trust company, or other organization which holds and safeguards an individual's, mutual funds", or investment company's assets for them.

General Ledger - One database found on the APL system that houses historical data that includes any cash flow income. [EDGL on APL]

Money Manager - The individual who manages a portfolio of investments.

- Also known as Portfolio Manager or Investment Manager
- Person with Fiduciary Responsibility

SMA - Separately Managed Account. Professionally managed account portfolio of securities that uses pooled money to buy investments owned directly by the account holder.

Transaction - An agreement between a buyer and a seller to exchange an asset for payment. In accounting, any event or condition recorded in the book of accounts.

UMA - Unified Managed Accounts. Portions of the portfolio are managed by different investment sub-managers. A master manager allocates funds to each sub-manager and handles the administration of the UMA. Interchangeable with MSP; MSP is being replaced by UMA.

Universe - Group of accounts managed; A collection of accounts within a client directory to which a user has access.

Wrap/SMA Account - An investment consulting relationship for management of a client's funds by one or more money managers that bills all fees and commissions in one comprehensive bill charged quarterly.

Wrap/SMA Broker/Dealer (also known as Wrap Sponsor) - A Broker/Dealer (person who executes/administers the trades) serves as custodian for a client and their individually managed investments when looking for a vehicle that charges one flat fee.

Wrap/SMA Broker/Dealer User Group - This group was formed for clients under the BD business unit at CIS to network, discuss, and address issues that affect them as a user and overall business data processing. There is a main group that includes all types of Broker/Dealer clients involved and in addition where smaller, more focused break out groups can be found for specific areas of APL.

Wrap/SMA Fee - A bundled fee that includes a portion going to the broker of record, the management firm, and an SEC fee.

Wrap/SMA Industry - Interested parties generally include the Broker/Dealer, Investment Manager, and Banking Institutions.

Wrap/SMA Manager - An Investment Management firm that maintains a client's portfolio coming from a brokerage firm. Investment decisions are based on their own investment style. This will include a list of securities that follow along the clients risk tolerance, charging a quarterly bundled fee to the client.

Wrap/SMA Mutual Fund - Refers to a product offered to the investor that provides them access to programs where professional management and advisement where portfolios are solely invested in mutual funds.

Appendix B: APL Account Master Database fields

ADM	Account Administrator. Use the account Administrator's initials to uniquely identify him or her.
	Controls the amortization method to be used for the specific tax lot:
AMTMTH	<ul style="list-style-type: none">• YLD = Yield/Scientific method• SL = Straight Line method• NONE = No amortization
AUDIT	Date of last audit.
BANK	Short name of bank or custodian.
BASEAC	Base account (used in COMBONYC). Also used to block dividends and splits.
BEGDTE	Billing beginning date (MM/DD/YY). This date must coincide with the quarter on which the client is billed.
BRKPCT	Broker percent. Automated Commissions can be coded in this field.
BWNUM	Account number. The maximum number of characters is nine (Numeric only).
CHARAC	User-defined free field.
CLODT	Date account was closed.
COMBON	Group account identifier for combined account billing.
CUST1	User-defined free field.
CUST2	User-defined free field.
CUST3	User-defined free field.
CUST4	User-defined free field. Also used to code minimum commissions.
CUST5	User-defined free field.
CUST6	User-defined free field.

CUST7	User-defined free field.
CUSTOD	Indicates the number of copies of the client report to be printed.
DESBRK	Designated broker.
DESFIX	Designated Fixed Income Target.
DESPCT	Designated Equity Target.
DISCRT	User defined free field.
	Discretion/voting field for SEC 13F filings:
DISVOT	<ul style="list-style-type: none"> • Y means sole • S means shared • N means none <p>For example. YN means sole discretion, no voting authority.</p>
DTCBRK	DTC broker firm identification number.
DTCNO	Complete 12 digit DTC account number at the custodian bank. (Comprised of DTCNO1, first 6 characters, and DTCNO2, last six characters.)
FAMILY	User defined free field. This can be used to code family relationships.
	Type of funds / investment strategy:
FDTYPE	<ul style="list-style-type: none"> • BALANC (balanced) • EQUITY (equity) • FIXED (fixed income)
FEEAGR	Fee agreement for billing reports.
FISCAL	Ending date for account's fiscal year.
FIXED	Field that will lock in a price or that will allow you to code a fixed dollar amount for billing.
	Methodology for selling assets:
FOFO	<ul style="list-style-type: none"> • 1 - LIFO (last in - first out) • 2 - FIFO (first in - first out) • 3 - MINTAX (minimum tax) • 4 - HIGH COST (highest cost) • 5 - AVGCOST (average cost)

- 6 - LOWCOST (lowest cost)

FREQCY	Frequency of reporting.
GAIN	Account Gain.
INVGRP	Investment group.
MGR	Manager code (usually initials of the manager).
MINMUM	Minimum dollar amount of bill per billing period.
MMFUND	Money market fund linked to the account.
NAMES	Number of securities in a portfolio.
NDATE	Date the account was added to the APL system. This field cannot be changed.
OBJECT	Objective (ex: growth or income) of account.
OLDAC	Alternate account number field.
OPEDT	Beginning date the portfolio manager is responsible for the account.
QRTFEE	Fee for accounts billed on a quarterly basis.
RECEPT	Who pays the fees for the account.
REPFQY	Report frequency: <ul style="list-style-type: none"> • Q = Quarterly • M = Monthly
RESID	Residence identification(two - letter state code).
RR	Account status code. RR numbers are: <ul style="list-style-type: none"> • 0 - 98 Active accounts • 99 Closed accounts • 100 Benchmarks • 110+ Combined accounts

Note: For new accounts not authorized to trade, status codes are used at client's discretion.

SNAM	Short name for an account. It is a six character alphanumeric field.
SOCIND	User defined free field.
SOCSEC	Social Security Number for the owner of the account.
SOURCE	Source of funds. This field is used in ADV reports.
STKUNV	Stock universe or model portfolio reference.
SWEEP	Indicator for income sweep out of an account (DLVINC) or for income transferred to principal (TFRINC).
TXSTAT	Tax status of an account: <ul style="list-style-type: none"> • Taxable • Exempt
TYPCMB	Type of fee allocation for combined accounts.
VALUE	Portfolio value as of the last posting date from the performance file(from EVALPMSECT). This is used in ADV reports.
VEHICL	Investment vehicle, often used to indicate ESOP or UMA.
<div style="border: 1px solid gray; border-radius: 10px; padding: 5px; display: inline-block;"> Note: The following fields cannot be edited: </div>	
W13321	Cash value of an account as of prior day's processing - actual cash represented by security SACUS =13321.
WCASH	Cash value of an account as prior day's trades - includes actual cash and securities with ISSTY = 1.
WCOST	Total cost of an account as of prior day's trades - original cost, not amortized cost.
WEQUY	Equity value of an account as of prior day's trades and prices.
WFIXED	Fixed Income value of an account as of prior day's trades and prices does not include accrued interest.
WINCME	Total Account Income.
WTIME	Windows Update Time.

WTOTAL	Total Value of an account as of prior day's trades and prices - does not include accrued interest.
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XRSTAT	Native currency of account / Foreign Currency Codes.
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