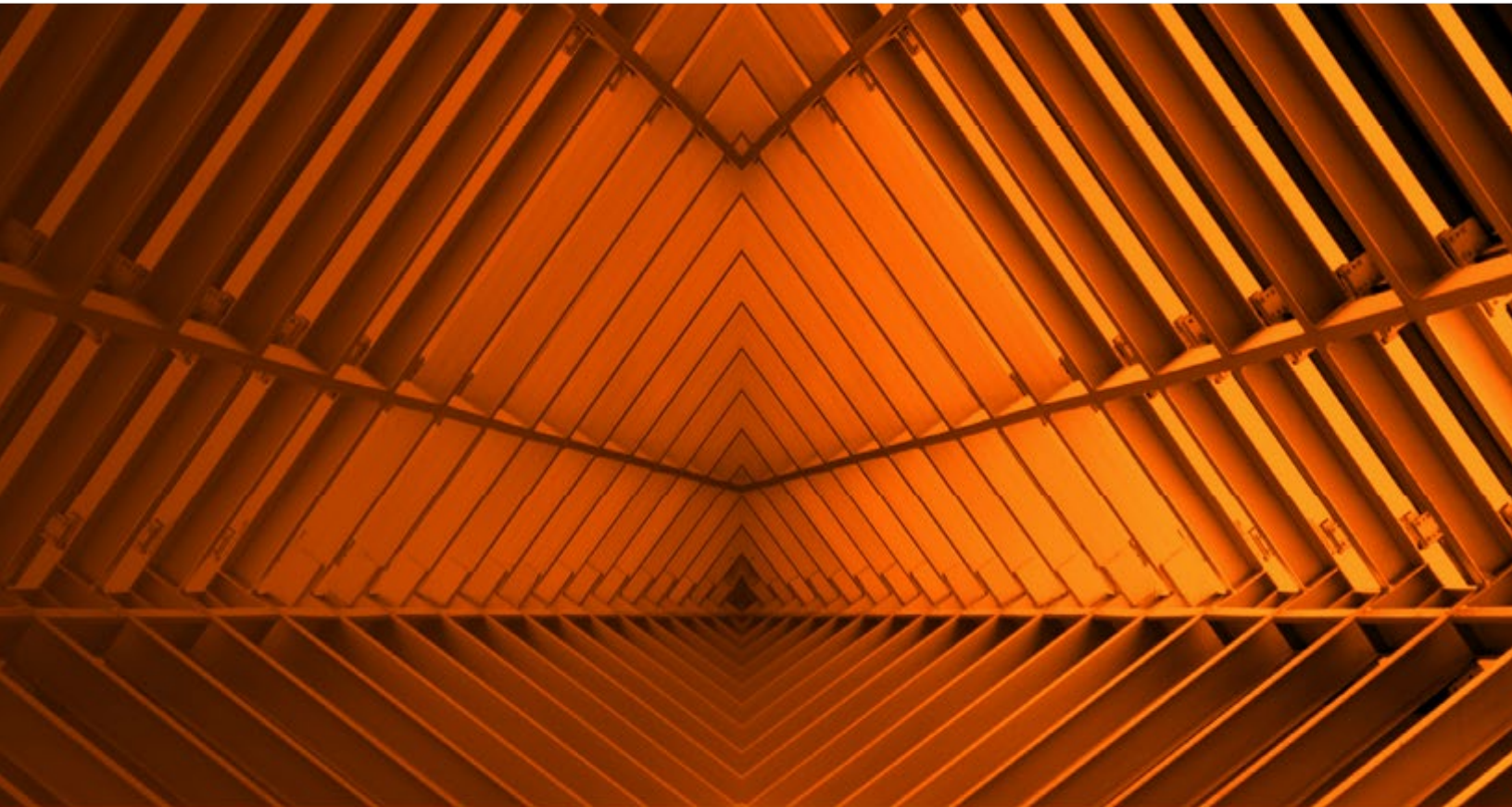


DTCC

ALTERNATIVE INVESTMENT PRODUCTS (AIP)

IMPLEMENTATION GUIDE



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IMPLEMENTATION GUIDE

Implementation Guide Overview

This guide provides an overview of the information needed to implement AIP for mainframe connections and browser-based applications. In addition to this guide, the Data Dictionary, which provides byte-by-byte detail of all records, and Transaction Flows should be used to fully understand how the service works. AIP documentation can be found on the AIP website: www.dtcc.com/aip. Other reference information such as sample files are available upon request.

AIP SERVICE OVERVIEW

DTCC's Alternative Investment Product Services (AIP) is a standardized, trading and reporting platform that links the alternative investments industry to securely and efficiently exchange data and money. The centralized AIP Platform was built in collaboration with industry partners and designed to be easily accessible to all alternatives marketplace participants. Engineered to support alternative investments products including hedge funds, funds of funds, private equity, non-traded REITs and business development companies, the platform helps eliminate manual transactions, speed processes, lower operational risks and costs and increase transparency across the marketplace.

The service automates a broad range of pre-trade, trade and post-trade transactions such as creating a profile for a fund, announcing information about a fund, processing orders and communicating position, and activity data. The system also supports money settlement, electronic document transmission and provides reminders for some transactions.

Transactions are bilateral, generally, with a 'Firm' on one side of the transaction and a 'Fund' on the other side. Dependent upon the transaction type, Firms and Funds can play the role of sender or receiver.

If a record should be sent to multiple recipients, for example for a Security General Profile, this can be accomplished by repeating the same record and specifying a different recipient on each record. Additionally, entities such as Service Bureaus and Fund Administrators can send and/or receive transactions on behalf of Funds or Firms. Please note there are some records such as reminders and settlement that originate from the AIP application only and are sent to AIP clients.

Contact & Support

For additional information or questions about the service, please contact a member of the AIP team. Contact information is available on the [AIP website](#). For Production support, please contact 888-382-2721 or 212-855-8099 Options 5-5-2 or AIPSupport@dtcc.com.

Hours of Operation

The AIP service is available for transaction processing six days week, from Monday through Saturday while settlement is processed Monday through Friday. There are transactions and settlement on some holidays, which are noted on the 'Essentials' section of the AIP Website under - [Holiday Processing Output Schedule](#).

Originator Types

In the AIP system, there are two Originator Types – Fund and Firm. These roles specify which files can be inputted as well as the types of records that can be submitted or received. Generally, AIP Firms are Broker-Dealers or Custodians and AIP Funds are Funds, Fund Administrators or Funds of Funds. Funds can only send AIP Fund Input while Firms can only send AIP Firm Input. Both Funds and Firms can receive the three primary output files: AIP Records Output, AIP Settlement Output and AIP Reminders/Broadcast. Service providers can submit and receive transactions for AIP Firms and/or AIP Funds who have designated them to do so.

PROCESSING

The AIP system processes input transactions as they are received and output becomes available after scheduled output cycles are completed; output timing can vary based on input volume. Output processing starts at the times indicated below. Please refer to the AIP website under the 'Essentials' section for the most updated – [Output Schedule](#).

Output Schedule

All times are shown Eastern Time

Production Output Cycles Monday - Friday				
Time (Cycle)	Records	Settlement	E-Doc Zip	Reminders & Broadcast
6:10 AM (C1)	x	x	x	
9:10 AM (C2)	x		x	
11:10 AM (C3)	x		x	
12:10 PM (C4)	x		x	
2:10 PM (C5)	x		x	
4:10 PM (C6)	x		x	
5:10 PM (C7)	x		x	
7:00 PM (C98)	x	x	x	x

Production Output Cycles Saturday
5:10 AM (C98) – All File Types

PSE/Test Output Cycles Monday - Friday
9:00 AM – 7:00 PM Output runs every 30 minutes 21 cycles
Records: All Cycles
Settlement: First (C1) & Last Cycle (C98)
E:Doc Zip: All Cycles
Reminders & Broadcast: Last Cycle (C98)

PSE/Test Output Cycles Saturday
5:10 AM (C98) – All File Types

Input

Input files can be submitted to the AIP service during the hours of operation. Each file can contain thousands of records of different record types and multiple files can be submitted throughout the day. Any updates made to the following records require a cache refresh before AIP will validate against those new updates:

- Security General Profile
- Security Contact
- Security Announcement

The cache refresh is done after each AIP Output Cycle. For example, if an update is made to one of the above records in Cycle 1, AIP will only validate against those updates for records sent in Cycle 2 or thereafter.

Note:

Input submitted on Sundays and non-processing days such as holidays will be rejected unless certain modifications are made to the file.

Input Deadline Extension Guidelines

Input files must be received by DTCC before the applicable cycle deadline as published in the output schedule. Under certain limited circumstances, DTCC may extend a cycle deadline. If an extension is needed for any input submission, firms should use one of the following methods to obtain support:

- Email aipsupport@dtcc.com
- Call DTCC Client Support at 1-888-382-2721 and follow the prompt for production support

If DTCC, at its sole discretion, extends a deadline that would significantly delay processing, a communication will be distributed.

Output

Output files are created after the output process is complete; however, there will not be a notification when output is available. Depending upon the connectivity configuration, the file will either be transmitted to the client or the client will need to request/download output.

Service Legal Agreement

The AIP SLA target is to complete processing within 45 minutes of the cycle time specified in the Production processing schedule. Extended delays will be communicated to AIP clients via email notification.

Environments

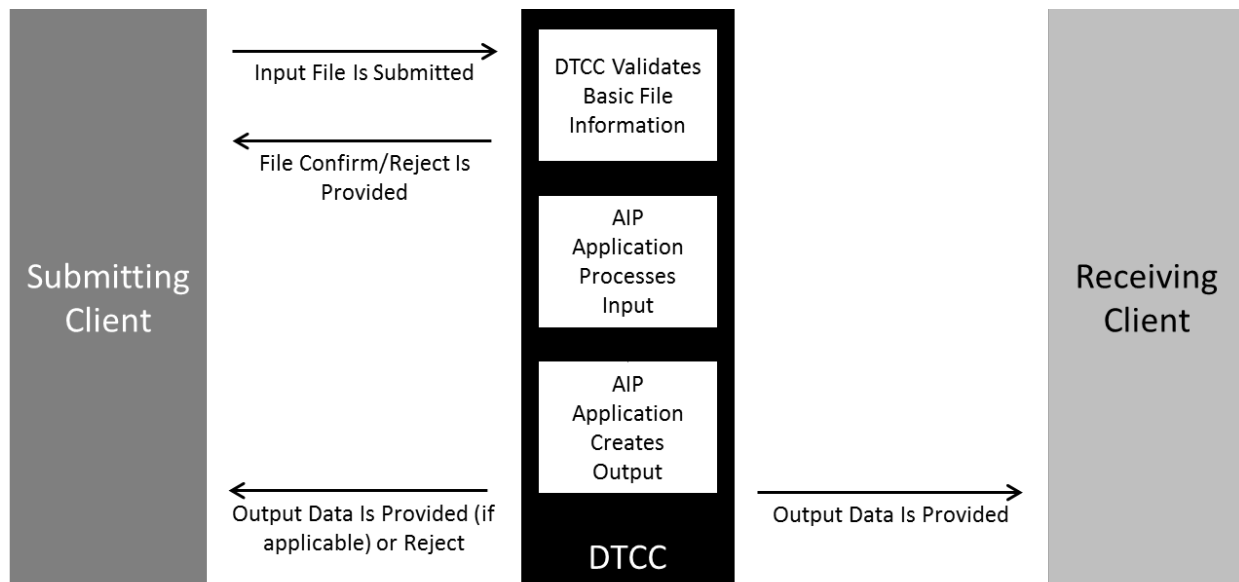
The AIP application has two environments that can be accessed through any connectivity option. There is the Production environment and the Test environment, which is referred to as PSE (Participant Services Environment). All testing should be conducted in the PSE environment and it is recommended that all firms test in PSE before going to Production to ensure they are familiar with all processes related to AIP.

Note:

Production data should not be submitted in the Test/PSE environment.

Process Flow

Individual Transaction Flows are provided on the [AIP website](#) but the diagram below provides a general overview of how the process flow works. For simplicity, reminders and settlement aren't included.



Note:

DataTrak Confirm Rejects/Warnings and reject codes are detailed in the Appendix.

FILES

There are several files processed and created by the AIP system which are detailed in the table below. Clients are required to request the files they would like to be configured for during the set-up process.

AIP FILES			
File	File Description	Test (PSE)	Production
AIP Firm Input	Used to transmit AIP input data from a Firm	45346	05346
AIP Fund Input	Used to transmit AIP input data from a Fund	45376	05376
AIP E-Doc Zip Input	Used to transmit AIP Electronic Documentation	45385	05385
AIP Records Output	Generated by the AIP application and contains AIP records as well as rejects for both Firm and Fund input	02980046	02530046
AIP Settlement Output	Generated by the AIP application and contains settlement information	02980076	02530076
AIP Reminders/Security Broadcast	Reminders: Generated by the AIP application and sent to both Firm and Fund to provide notification that AIP is waiting on receipt of a specific record	02981540	02531540
	Security Broadcast Messages: Generated by the AIP application and sent to Firms for notification of a new record or change to an existing record for the Security General Profile (061), Security Announcement (062) and Security Contact (063)		
AIP E-Doc Output	Generated by the AIP application and contains Electronic Documentation	02982918	02532918

RECORDS

Input Records

At a summary level, AIP files have three categories of records: DataTrak/AutoRoute/CDTS Header and Trailer Records, AIP Application Header and Trailer Records and AIP Business Records. The order of records in an input file is:

- DataTrak/CDTS Header
- AIP Application Header
- AIP Business Records
- AIP Application Trailer
- DataTrak/CDTS Trailer

Mainframe users must provide all of the records within the file. Browser users only need to create files by inputting data in the Excel Macro or creating a file with only AIP Business Records – both types of headers and trailers are created by the application when the file is uploaded.

Output Records

There are two structures for output records with the AIP Records Output and AIP Reminders/Security Broadcast sharing one structure while the AIP Settlement Output has a different structure. Details are below.

AIP Records Output and AIP Reminders/Security Broadcast

- AutoRoute/CDTS Header
- AIP Application Header
- AIP Business Records
- AIP Application Trailer

AIP Settlement Output

- AutoRoute/CDTS Header
- Settlement Detail
- Settlement Trade Trailer
- Settlement Grand Total Trailer

Note:

The Settlement Output file includes settling and non-settling transactions when the Settlement Date on the record is populated.

Settlement

AIP supports money settlement for companies that have completed the process to become eligible for settlement, including the designation of an AIP Settlement Bank. Settlement files contain settlement data, organized by Settlement Date (SD). Settlement files provide information for transactions leading up to settlement date starting four business days in advance: SD-3, SD-2, SD-1 and SD. The information is provided on a rolling basis so today's SD-3 transaction will be tomorrow's SD-2 transaction, etc. and will reflect any changes made. Please contact a member of the AIP team to discuss the set-up of a settling bank if settling transactions will be implemented.

Electronic Documentation (E-Doc)

AIP supports the transmission of electronic documents (PDF or TIF) that are associated with AIP transactions. The process uses a zip file containing the documentation along with a 'manifest' that associates the documents to the Control Number of the related transaction. The E-Doc functionality supports Orders, Account Transfers, Account Registrations and Account Maintenance records.

TECHNICAL ARCHITECTURE AND DATA RETENTION

Technical Architecture

The application runs on DTCC's Distributed Environment and the following table provides additional information about the technical details.

TECHNICAL APPLICATION DETAILS		
Name	Type	Description
AIP Processor	Java/Oracle/DB2	Reads and validates submitted records and bulk inserts the records into the Oracle Database tables. This component runs continuously as a server and is implemented in Java. It processes records in batch as they become available in the work queue.
Database Modules	Oracle	Database object creation, archiving and purging.
Gateway/CDTS	Mainframe Cobol	Utilize DTCC CDTS (Common Data Transfer System) as the gateway to the AIP application for all incoming and outgoing files.
Web Upload and Download		Web interface for CSV and MRO files hosted on DTCC CRE (Common Runtime Environment) environment built on IBM Web sphere clusters.

Data Retention

All incoming data will be stored for 2 weeks. All outgoing data will be stored for 5 years.

COMPONENTS OF IMPLEMENTATION

There are three key components to implementation: Membership, Connectivity, and Application.

Membership

Either your company or the company you are transmitting on behalf of must become an AIP member even if you have an existing membership with one of the DTCC entities such as DTC, NSCC or FICC. Please speak to a member of the AIP team to review this process.

Connectivity

Network

The AIP service can be accessed via DTCC's private SMART (Securely Managed And Reliable Technology) network or via the internet. The SMART network provides greater security and automation but the implementation can be more complex if it's being set-up for the first time. Additionally, there may be installation and/or monthly fees if the connection is not already established for another DTCC service. Companies that have an existing SMART connection with ample bandwidth can leverage it with no additional cost and it is typically the simplest and best connectivity option. SMART is available via an MPLS dedicated circuit or ANIRA, a desktop VPN client; additional information is available for both of these options from an AIP team member. There are no DTCC charges for connecting with the browser application via the internet but users need to manually upload and download files.

Protocol

The AIP application is available via SFTP (SSH), FTPS (SSL), NDM, and HTTPS.

File Format

SFTP, FTPS, NDM and the browser-based application support both MRO and CSV file formats. The choice of file format must be specified at the time of set-up and files will be generated and expected in that format type unless a request is submitted to change it.

Connectivity Summary Table

The following table expresses all of the options for connectivity in a matrix format.

CONNECTIVITY SUMMARY					
Protocol	Network			File Format	
	SMART-MPLS	SMART- ANIRA	Internet	MRO	CSV
SFTP	Yes	No	Yes	Yes	Yes
FTPS	Yes	No	Yes	Yes	Yes
NDM	Yes	No	No	Yes	Yes
HTTPS	Yes	Yes	Yes	Yes	Yes

Set-up and Configuration

The set-up and configuration depends upon the protocol and network type selected. SFTP, FTPS and NDM, which are referred to as mainframe connections, follow one general process while HTTPS/browser users follow another.

Mainframe

The following steps should be followed to set-up a mainframe connection to AIP:

- Ask an AIP team member to set-up a connectivity call with the DTCC connectivity team to review the process and requirements
- Receive and complete documentation including a Router Exchange Form (REF) requesting set-up of an AIP connection including IP addresses, nodes, etc.
- Conduct high-level connectivity testing with the DTCC connectivity team to ensure the connection is working in the Test environment
- Complete application testing with test partners
- Activate membership, have the Test environment set-up mirrored in Production and start sending transactions in Production

HTTPS/Browser

The following steps should be followed to set-up a HTTPS/Browser connection to AIP:

- Complete the Super Access Coordinator (SAC) form to set-up at least two people at your company to administer access for users of the AIP application
 - A SAC performs administrative functions such as setting up user IDs for the AIP application
 - A SAC uses a browser-based application called the Customer Registration System (CRS), which resides on the DTCC Portal along with the AIP application
 - A SAC form will be sent via email and needs to be completed, printed, signed and returned to DTCC

- Once received and processed, a SAC will receive instructions to login and set-up users
- There are several roles available for users, which can be assigned based on the entitlements required by each user
- An extensive SAC guide is available upon request and/or will be emailed to you with the login instructions
- Conduct high-level connectivity testing with a DTCC team member to ensure the connection is working in the Test environment
- Complete application testing with test partners
- Activate membership, have the Test environment set-up mirrored in Production and start sending transactions in Production

Application

Mainframe users interact with the application by sending and receiving files via the chosen protocol to the IP of the service. HTTPS Browser users login to the DTCC Portal at <https://portal.dtcc.com> (internet) or <https://portal.dtcc.net> (SMART), launch the AIP application and upload and download files.

Excel Macro

An Excel Macro is provided to create MRO or CSV files from an Excel spreadsheet. Users input data into the Excel Macro and it creates a properly formatted file, which is transmitted to the application. The Excel Macro and a separate user guide can be provided by the AIP team and is not detailed here.

Note:

While the Excel Macro is intended for HTTPS Browser users, mainframe users can also use it to create files, which would be submitted via the chosen connectivity option with the required headers and trailers added.

Client Application

Please note that AIP does not provide software to support the implementation of AIP. The application will receive input files and create output files but additional software for extracting, creating or processing these files on client systems is not provided.

Testing

Testing is strongly encouraged to ensure familiarity with the AIP application and Production readiness. Companies should speak with their test partner(s) to coordinate test scenarios and review schedules and expectations for Production data. Some trading partners will require testing.

Contras/Counterparties

While all aspects of the AIP service are available for implementation, AIP members generally choose to implement a subset of transactions. Please check with your contras/counterparties or a member of the AIP team to verify which transactions they have implemented.

APPLICATION PROCESSING, VALIDATION, AND REJECTS

Processing Orders of Records

The AIP application processes transactions in a specific way, based on five groups and records, as detailed below.

- Each file received will be treated independently and each Record Type in the file will be associated with a specific group
- Groups are processed sequentially, e.g., Group 1 processing must be completed before Group 2 processing can start
- Record types in each group are processed in parallel, but any record type in the group tagged with “(Serial)” will be processed serially, but concurrently with the other record types in that group
- All files received from different submitters will be processed simultaneously because the record dependency will not occur within the same cycle
- All files received from the same submitter within the same cycle could have record dependencies and will be processed with a file and group dependent input process

Group 1
061 – Security General (Serial)
Group 2
062 – Security Announcement (Serial)
063 – Security Contact (Serial)
Group 3
003 – Firm Acknowledgement of Fund Order
004 – Firm Reject of Fund Order
005 – Fund Acknowledgement of Firm Order
006 – Fund Reject of Firm Order
011 – Firm Order with Registration
012 – Fund Order with Registration
025 – Registration
026 – Registration Acknowledgement
027 – Registration Reject
030 – Payment
031 – Payment Acknowledgement

036 – Fund Acknowledgement of Prepaid Order
037 – Fund Reject of Prepaid Order
050 – Activity and Distribution
051 – Commission
052 – Position
053 – Account Maintenance
054 – Activity Acknowledgement
055 - Activity Reject
057 – Account Maintenance Acknowledgement
058 – Account Maintenance Reject
060 – Valuation
064 – Security Profile Request
065 – Security Profile Request Acknowledgement
066 – Security Profile Request Reject
067 – Position Schedule Request
068 – Position Schedule Request Acknowledgement
069 – Position Schedule Request Reject
094 – Electronic Documentation Acknowledgement by Fund
095 – Electronic Documentation Reject by Fund
202 – Fund Account Transfer Acknowledgement
203 – Fund Reject of Account Transfer
204 – Firm Reject of Account Transfer
Group 4
001 – Firm Order
002 – Fund Order
007 – Confirmation (Serial)
008 – Correction (Serial)
009 – Firm Exit of Order
010 – Fund Exit of Order
015 – Firm Exchange
016 – Fund Exchange
018 – Fund Confirmation of Exchange

032 – Prepaid Firm Order
038 – Firm Exit of Prepaid Order
040 – Prepaid Order Confirmation (Serial)
041 – Prepaid Order Correction (Serial)
043 – Prepaid Firm Order with Registration
056 – Activity Confirmation
096 – Electronic Documentation Accepted by Fund
201 - Account Transfer
205 - Fund Exit of Account Transfer
206 - Firm Exit of Account Transfer
207 - Confirmation of Account Transfer (Serial)
208 - Correction of Account Transfer (Serial)
Group 5
042 – Contract Note (Serial)

AIP Validation – Hard Rejects

AIP validates input data sequentially through the following four levels:

- Transmission Validation
- Input Data Format Validation
- Basic Rules Validation
- Business Rules Validation

If invalid data is found at any level of validation, AIP stops at that level, rejects the record with the appropriate error code and does not move to the next level. AIP can report up to 4 error codes per record. Reject codes are listed in the Data Dictionary and are received via the AIP Records Output file. Records that are hard rejected are not transmitted to the recipient. Hard rejects must be corrected and resubmitted to be received by the recipient.

Transmission Validation

The input file transfer system, DataTrak/CDTS, validates the transmission header and trailer to ensure the highest level information about the file content is correct. If DataTrak/CDTS finds an error with the transmission date, etc., it will reject the file with a description and the entire file will not be submitted to the AIP system.

Input Data Format Validation

Input data format validation is the second level of validation in the AIP system and it validates the basic format of the input data such as length, data type (Alphanumeric, numeric or alpha), date pattern (e.g., mmddyyyy) and a predefined set of values for a particular field (e.g., the Originator Type field value should be either B or F). If any of the field values are invalid, then AIP rejects the record and will not move to the next level.

Basic Rules Validation

Basic rules validation is the third level of validation where AIP checks to see if necessary data is present.

The following fields are part of basic rules validation:

- NSCC Security Issue Number
- Security Issue Name
- Security Identifier
- Share Class

AIP verifies that the data in the fields above are valid in the AIP database. If any of the values don't match the value in the AIP database, AIP rejects the record and will not move to next level.

Business Rules Validation

Business rules validation is the fourth and final level of validation, which verifies business rules and dependencies such as population optional/conditional fields when conditions require it. AIP locates any rules that are not matching and rejects the record.

AIP Validation – Soft Reason Codes

In addition to hard rejects, AIP also transmits soft reason codes for records that are validated against the Security Announcement. Soft reason codes, are informational 'rejects' that do not stop processing but provide additional information, which indicate that although the data passed the AIP hard edits, a particular field may need attention. An example of this is a purchase order submitted after the subscription period ended. AIP would transmit the Order from the Firm to the Fund and include a soft reason code to the Fund only indicating the Fund is closed for purchases; the Firm will not receive a soft reason code. Soft reason codes are contained in the Data Dictionary and are received via the AIP Records Output file.

Note:

If there are both hard rejects and soft reason codes, the record will be back to the Firm with hard rejects only; soft reason codes will not be included

Firm-Fund Validation

In addition to AIP validation, for certain record types such as Orders, AIP Participants can reject records and specify a reason for the reject. In cases of Firm-Fund rejects, a record was submitted and validated by AIP but the receiver chose to reject the order back to the submitter. For example, a submitter not populating an optional field that the receiver requires. Firm-Fund rejects are contained in the Data Dictionary.

AIP RECORDS

There are over 90 record types in the AIP service, all of which are specified in the Data Dictionary. All records are assigned a three-digit identifier, such as the Security General Profile, which is designated as 061. The Data Dictionary provides all of the field level information about each record and the Transaction Flows provide process flow information about transactions.

Reminders

Reminders are records that alert Funds and Firms of a pending action that is required. Reminders are only sent in the last cycle (C98) on valid AIP processing days. A table in the appendix outlines the rules for reminders across all transactions.

APPENDIX

Acceptable Characters

Standard Characters

Used as permitted in numeric and alphanumeric fields

STANDARD CHARACTERS		
0 - Digit Zero	L - Latin Capital Letter L	g - Latin Small Letter G
1 - Digit One	M - Latin Capital Letter M	h - Latin Small Letter H
2 - Digit Two	N - Latin Capital Letter N	i - Latin Small Letter I
3 - Digit Three	O - Latin Capital Letter O	j - Latin Small Letter J
4 - Digit Four	P - Latin Capital Letter P	k - Latin Small Letter K
5 - Digit Five	Q - Latin Capital Letter Q	l - Latin Small Letter L
6 - Digit Six	R - Latin Capital Letter R	m - Latin Small Letter M
7 - Digit Seven	S - Latin Capital Letter S	n - Latin Small Letter N
8 - Digit Eight	T - Latin Capital Letter T	o - Latin Small Letter O
9 - Digit Nine	U - Latin Capital Letter U	p - Latin Small Letter P
A - Latin Capital Letter A	V - Latin Capital Letter V	q - Latin Small Letter Q
B - Latin Capital Letter B	W - Latin Capital Letter W	r - Latin Small Letter R
C - Latin Capital Letter C	X - Latin Capital Letter X	s - Latin Small Letter S
D - Latin Capital Letter D	Y - Latin Capital Letter Y	t - Latin Small Letter T
E - Latin Capital Letter E	Z - Latin Capital Letter Z	u - Latin Small Letter U
F - Latin Capital Letter F	a - Latin Small Letter A	v - Latin Small Letter V
G - Latin Capital Letter G	b - Latin Small Letter B	w - Latin Small Letter W
H - Latin Capital Letter H	c - Latin Small Letter C	x - Latin Small Letter X
I - Latin Capital Letter I	d - Latin Small Letter D	y - Latin Small Letter Y
J - Latin Capital Letter J	e - Latin Small Letter E	z - Latin Small Letter Z
K - Latin Capital Letter K	f - Latin Capital Letter F	

Special Characters

Used in addition to the Standard Characters in fields noted in the Data Dictionary as 'Special characters allowed'.

SPECIAL CHARACTERS		
! - Exclamation Mark	? - Question Mark	- - Hyphen-Minus
" - Quotation Mark	' - Apostrophe	. - Full Stop
# - Number Sign	(- Left Parenthesis	/ - Solidus
\$ - Dollar Sign) - Right Parenthesis	@ - Commercial At
% - Percent Sign	* - Asterisk	_ - Low Line
& - Ampersand	+ - Plus Sign	` - Grave Accent
: - Colon	, - Comma	{ - Left Curly Bracket
; - Semicolon	[- Left Square Bracket	- Vertical Line
< - Less-Than Sign	\ - Reverse Solidus	} - Right Curly Bracket
= - Equals Sign] - Right Square Bracket	~ - Tilde
> - Greater-Than Sign	^ - Circumflex Accent	

State, Country and Currency Codes

State Codes

STATE CODES	
Blue Sky States	Blue Sky State Codes
Armed Forces Americas	AA
Armed Forces Europe, Canada, Africa, Middle East	AE
Alaska	AK
Alabama	AL
Armed Forces Pacific	AP
Arkansas	AR
American Samoa	AS
Arizona	AZ
California	CA
Colorado	CO

STATE CODES	
Connecticut	CT
District of Columbia	DC
Delaware	DE
Florida	FL
Federated States of Micronesia	FM
Georgia	GA
Guam	GU
Hawaii	HI
Iowa	IA
Idaho	ID
Illinois	IL
Indiana	IN
Kansas	KS
Kentucky	KY
Louisiana	LA
Massachusetts	MA
Maryland	MD
Maine	ME
Marshall Island	MH
Michigan	MI
Minnesota	MN
Missouri	MO
North Marianas	MP
Mississippi	MS
Montana	MT
North Carolina	NC
North Dakota	ND
Nebraska	NE
New Hampshire	NH
New Jersey	NJ
New Mexico	NM

STATE CODES	
Nevada	NV
New York	NY
Ohio	OH
Oklahoma	OK
Oregon	OR
Pennsylvania	PA
Puerto Rico	PR
Palau	PW
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Virginia	VA
Virgin Islands	VI
Vermont	VT
Washington	WA
Wisconsin	WI
West Virginia	WV
Wyoming	WY

Country Codes

COUNTRY CODES		
Country Name	ISO alpha-2	ISO alpha-3
Afghanistan	AF	AFG
Åland Islands	AX	ALA
Albania	AL	ALB
Algeria (El Djazaïr)	DZ	DZA
American Samoa	AS	ASM

COUNTRY CODES		
Andorra	AD	AND
Angola	AO	AGO
Anguilla	AI	AIA
Antarctica	AQ	ATA
Antigua And Barbuda	AG	ATG
Argentina	AR	ARG
Armenia	AM	ARM
Aruba	AW	ABW
Australia	AU	AUS
Austria	AT	AUT
Azerbaijan	AZ	AZE
Bahamas	BS	BHS
Bahrain	BH	BHR
Bangladesh	BD	BGD
Barbados	BB	BRB
Belarus	BY	BLR
Belgium	BE	BEL
Belize	BZ	BLZ
Benin	BJ	BEN
Bermuda	BM	BMU
Bhutan	BT	BTN
Bolivia	BO	BOL
Bonaire, St. Eustatius, And Saba	BQ	BES
Bosnia And Herzegovina	BA	BIH
Botswana	BW	BWA
Bouvet Island	BV	BVT
Brazil	BR	BRA
British Indian Ocean Territory	IO	IOT
Brunei Darussalam	BN	BRN
Bulgaria	BG	BGR
Burkina Faso	BF	BFA

COUNTRY CODES		
Burundi	BI	BDI
Cambodia	KH	KHM
Cameroon	CM	CMR
Canada	CA	CAN
Cape Verde	CV	CPV
Cayman Islands	KY	CYM
Central African Republic	CF	CAF
Chad (Tchad)	TD	TCD
Chile	CL	CHL
China	CN	CHN
Christmas Island	CX	CXR
Cocos (Keeling) Islands	CC	CCK
Colombia	CO	COL
Comoros	KM	COM
Congo, Republic Of	CG	COG
Congo, The Democratic Republic Of The (Formerly Zaire)	CD	COD
Cook Islands	CK	COK
Costa Rica	CR	CRI
Côte D'Ivoire (Ivory Coast)	CI	CIV
Croatia (Hrvatska)	HR	HRV
Cuba	CU	CUB
Curaçao	CW	CUW
Cyprus	CY	CYP
Czech Republic	CZ	CZE
Denmark	DK	DNK
Djibouti	DJ	DJI
Dominica	DM	DMA
Dominican Republic	DO	DOM
Ecuador	EC	ECU
Egypt	EG	EGY
El Salvador	SV	SLV

COUNTRY CODES

Equatorial Guinea	GQ	GNQ
Eritrea	ER	ERI
Estonia	EE	EST
Ethiopia	ET	ETH
Faeroe Islands	FO	FRO
Falkland Islands (Malvinas)	FK	FLK
Fiji	FJ	FJI
Finland	FI	FIN
France	FR	FRA
French Guiana	GF	GUF
French Polynesia	PF	PYF
French Southern Territories	TF	ATF
Gabon	GA	GAB
Gambia, The	GM	GMB
Georgia	GE	GEO
Germany (Deutschland)	DE	DEU
Ghana	GH	GHA
Gibraltar	GI	GIB
Great Britain (United Kingdom)	GB	GBR
Greece	GR	GRC
Greenland	GL	GRL
Grenada	GD	GRD
Guadeloupe	GP	GLP
Guam	GU	GUM
Guatemala	GT	GTM
Guernsey	GG	GGY
Guinea	GN	GIN
Guinea-Bissau	GW	GNB
Guyana	GY	GUY
Haiti	HT	HTI
Heard Island And Mcdonald Islands	HM	HMD

COUNTRY CODES		
Honduras	HN	HND
Hong Kong (Special Administrative Region Of China)	HK	HKG
Hungary	HU	HUN
Iceland	IS	ISL
India	IN	IND
Indonesia	ID	IDN
Iran (Islamic Republic Of Iran)	IR	IRN
Iraq	IQ	IRQ
Ireland	IE	IRL
Isle Of Man	IM	IMN
Israel	IL	ISR
Italy	IT	ITA
Jamaica	JM	JAM
Japan	JP	JPN
Jersey	JE	JEY
Jordan (Hashemite Kingdom Of Jordan)	JO	JOR
Kazakhstan	KZ	KAZ
Kenya	KE	KEN
Kiribati	KI	KIR
Korea (Democratic Peoples Republic Of [North] Korea)	KP	PRK
Korea (Republic Of [South] Korea)	KR	KOR
Kuwait	KW	KWT
Kyrgyzstan	KG	KGZ
Lao People'S Democratic Republic	LA	LAO
Latvia	LV	LVA
Lebanon	LB	LBN
Lesotho	LS	LSO
Liberia	LR	LBR
Libya (Libyan Arab Jamahirya)	LY	LBY
Liechtenstein (Fürstentum Liechtenstein)	LI	LIE
Lithuania	LT	LTU

COUNTRY CODES

Luxembourg	LU	LUX
Macao (Special Administrative Region Of China)	MO	MAC
Macedonia (Former Yugoslav Republic Of Macedonia)	MK	MKD
Madagascar	MG	MDG
Malawi	MW	MWI
Malaysia	MY	MYS
Maldives	MV	MDV
Mali	ML	MLI
Malta	MT	MLT
Marshall Islands	MH	MHL
Martinique	MQ	MTQ
Mauritania	MR	MRT
Mauritius	MU	MUS
Mayotte	YT	MYT
Mexico	MX	MEX
Micronesia (Federated States Of Micronesia)	FM	FSM
Moldova	MD	MDA
Monaco	MC	MCO
Mongolia	MN	MNG
Montenegro	ME	MNE
Montserrat	MS	MSR
Morocco	MA	MAR
Mozambique (Moçambique)	MZ	MOZ
Myanmar (Formerly Burma)	MM	MMR
Namibia	NA	NAM
Nauru	NR	NRU
Nepal	NP	NPL
Netherlands	NL	NLD
Netherlands Antilles (Obsolete)	AN	ANT
New Caledonia	NC	NCL
New Zealand	NZ	NZL

COUNTRY CODES		
Nicaragua	NI	NIC
Niger	NE	NER
Nigeria	NG	NGA
Niue	NU	NIU
Norfolk Island	NF	NFK
Northern Mariana Islands	MP	MNP
Norway	NO	NOR
Oman	OM	OMN
Pakistan	PK	PAK
Palau	PW	PLW
Palestinian Territories	PS	PSE
Panama	PA	PAN
Papua New Guinea	PG	PNG
Paraguay	PY	PRY
Peru	PE	PER
Philippines	PH	PHL
Pitcairn	PN	PCN
Poland	PL	POL
Portugal	PT	PRT
Puerto Rico	PR	PRI
Qatar	QA	QAT
Réunion	RE	REU
Romania	RO	ROU
Russian Federation	RU	RUS
Rwanda	RW	RWA
Saint Barthélemy	BL	BLM
Saint Helena	SH	SHN
Saint Kitts And Nevis	KN	KNA
Saint Lucia	LC	LCA
Saint Martin (French Portion)	MF	MAF
Saint Pierre And Miquelon	PM	SPM

COUNTRY CODES		
Saint Vincent And The Grenadines	VC	VCT
Samoa (Formerly Western Samoa)	WS	WSM
San Marino (Republic Of)	SM	SMR
Sao Tome And Principe	ST	STP
Saudi Arabia (Kingdom Of Saudi Arabia)	SA	SAU
Senegal	SN	SEN
Serbia (Republic Of Serbia)	RS	SRB
Seychelles	SC	SYC
Sierra Leone	SL	SLE
Singapore	SG	SGP
Sint Maarten	SX	SXM
Slovakia (Slovak Republic)	SK	SVK
Slovenia	SI	SVN
Solomon Islands	SB	SLB
Somalia	SO	SOM
South Africa (Zuid Afrika)	ZA	ZAF
South Georgia And The South Sandwich Islands	GS	SGS
South Sudan	SS	SSD
Spain (España)	ES	ESP
Sri Lanka (Formerly Ceylon)	LK	LKA
Sudan	SD	SDN
Suriname	SR	SUR
Svalbard And Jan Mayen	SJ	SJM
Swaziland	SZ	SWZ
Sweden	SE	SWE
Switzerland (Confederation Of Helvetia)	CH	CHE
Syrian Arab Republic	SY	SYR
Taiwan ("Chinese Taipei" For loc)	TW	TWN
Tajikistan	TJ	TJK
Tanzania	TZ	TZA
Thailand	TH	THA

COUNTRY CODES		
Timor-Leste (Formerly East Timor)	TL	TLS
Togo	TG	TGO
Tokelau	TK	TKL
Tonga	TO	TON
Trinidad And Tobago	TT	TTO
Tunisia	TN	TUN
Turkey	TR	TUR
Turkmenistan	TM	TKM
Turks And Caicos Islands	TC	TCA
Tuvalu	TV	TUV
Uganda	UG	UGA
Ukraine	UA	UKR
United Arab Emirates	AE	ARE
United Kingdom	GB	GBR
United States	US	USA
United States Minor Outlying Islands	UM	UMI
Uruguay	UY	URY
Uzbekistan	UZ	UZB
Vanuatu	VU	VUT
Vatican City (Holy See)	VA	VAT
Venezuela	VE	VEN
Viet Nam	VN	VNM
Virgin Islands, British	VG	VGB
Virgin Islands, U.S.	VI	VIR
Wallis And Futuna	WF	WLF
Western Sahara (Formerly Spanish Sahara)	EH	ESH
Yemen (Yemen Arab Republic)	YE	YEM
Zambia (Formerly Northern Rhodesia)	ZM	ZMB
Zimbabwe	ZW	ZWE

Currency Codes

CURRENCY CODES	
Currency Name	Currency Codes
Andorran Peseta	ADP
AE Dirham	AED
Afghani	AFA
Lek	ALL
Armenian Dram	AMD
Netherlands Antillean Guild	ANG
New Kwanza	AON
Kwanza Reajustado	AOR
Argentine Peso	ARS
Shilling	ATS
Australian Dollar	AUD
Aruban Guilder	AWG
Azerbaijani Manat	AZM
Dinar	BAD
Barbados Dollar	BBD
Taka	BDT
Belgian Franc	BEF
Lev	BGL
Bahraini Dinar	BHD
Burundi Franc	BIF
Bermudian Dollar	BMD
Brunei Dollar	BND
Boliviano	BOB
MVDol	BOV
Brazilian Real	BRL
Bahamian Dollar	BSD
Ngultrum	BTN
Pula	BWP
Belarussian Ruble	BYB

CURRENCY CODES

Belize Dollar	BZD
Canadian Dollar	CAD
Swiss Franc	CHF
Unidades de Formento	CLF
Chilean Peso	CLP
Yuan Renminbi	CNY
Colombian Peso	COP
Costa Rican Colon	CRC
Cuban Peso	CUP
Cape Verde Escudo	CVE
Cyprus Pound	CYP
Czech Koruna	CZK
Deutsche Mark	DEM
Djibouti Franc	DJF
Danish Krone	DKK
Dominican Peso	DOP
Algerian Dinar	DZD
Sucre	ECS
Unidad de Valor Constante	ECV
Kroon	EEK
Egyptian Pound	EGP
Spanish Peseta	ESP
Ethiopian Birr	ETB
Markka	FIM
Fiji Dollar	FJD
Falkland Islands Pound	FKP
French Franc	FRF
Pound Sterling	GBP
Lari	GEL
Cedi	GHC
Gibraltar Pound	GIP

CURRENCY CODES	
Dalasi	GMD
Guinea Franc	GNF
Drachma	GRD
Quetzal	GTQ
Guinea-Bissau Peso	GWP
Guyana Dollar	GYD
Hong Kong Dollar	HKD
Lempira	HNL
Kuna	HRK
Gourde	HTG
Forint	HUF
Rupiah	IDR
Irish Pound	IEP
Shekel	ILS
Indian Rupee	INR
Iraqi Dinar	IQD
Iranian Rial	IRR
Iceland Krona	ISK
Italian Lira	ITL
Jamaican Dollar	JMD
Jordanian Dinar	JOD
Yen	JPY
Kenyan Shilling	KES
Som	KGS
Riel	KHR
Comoro Franc	KMF
North Korean Won	KPW
Won	KRW
Kuwaiti Dinar	KWD
Cayman Islands Dollar	KYD
Tenge	KZT

CURRENCY CODES

Kip	LAK
Lebanese Pound	LBP
Sri Lanka Rupee	LKR
Liberian Dollar	LRD
Loti	LSL
Lithuanian Litas	LTL
Luxembourg Franc	LUF
Latvian Lats	LVL
Libyan Dinar	LYD
Moroccan Dirham	MAD
Moldovan Leu	MDL
Malagasy Franc	MGF
Denar	MKD
Kyat	MMK
Tugrik	MNT
Pataca	MOP
Ouguiya	MRO
Maltese Lira	MTL
Mauritius Rupee	MUR
Rufiyaa	MVR
Kwacha	MWK
Mexican Nuevo Peso	MXN
Malaysian Ringgit	MYR
Metical	MZM
Namibia Dollar	NAD
Naira	NGN
Cordoba Oro	NIO
Netherlands Guilder	NLG
Norwegian Krone	NOK
Nepalese Rupee	NPR
New Zealand Dollar	NZD

CURRENCY CODES	
Rial Omani	OMR
Balboa	PAB
Nuevo Sol	PEN
Kina	PGK
Philippine Peso	PHP
Pakistan Rupee	PKR
Zloty	PLN
Zloty	PLZ
Portuguese Escudo	PTE
Guarani	PYG
Qatari Rial	QAR
Leu	ROL
Russian Ruble	RUR
Rwanda Franc	RWF
Saudi Riyal	SAR
Solomon Islands Dollar	SBD
Seychelles Rupee	SCR
Sudanese Dinar	SDD
Swedish Krona	SEK
Singapore Dollar	SGD
St. Helena Pound	SHP
Tolar	SIT
Slovak Koruna	SKK
Leone	SLL
Somali Shilling	SOS
Surinam Guilder	SRG
Dobra	STD
El Salvador Colon	SVC
Syrian Pound	SYP
Lilangeni	SZL
Baht	THB

CURRENCY CODES	
Tajik Ruble	TJR
Manat	TMM
Tunisian Dollar	TND
Pa'anga	TOP
Timor Escudo	TPE
Turkish Lira	TRL
Andorran PeEURseta	EUR
Euro	XEU
Trinidad and Tobago Dollar	TTD
New Taiwan Dollar	TWD
Tanzanian Shilling	TZS
Hryvna	UAG
Karbovanets	UAK
Uganda Shilling	UGX
US Dollar	USD
Peso Uruguayo	UYU
Uzbekistan Sum	UZS
Bolivar	VEB
Dong	VND
Vatu	VUV
Tala	WST
CFA Franc BEAC	XAF
East Caribbean Dollar	XCD
CFA Franc BCEAO	XOF
CFP Franc	XPF
Yemeni Rial	YER
New Dinar	YUM
Financial Rand	ZAL
Rand	ZAR
Kwacha	ZMK
New Zaire	ZRN

CURRENCY CODES

Zimbabwe Dollar	ZWD
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Reminders

REMINDER RULES

Input item	Item for which Reminder is created	Additional Condition	Reminder record type	Day when reminder starts	Number of days Reminder created ¹	If no response, transaction is closed ²
Firm/Fund Order	Registration	Order requiring registration received before registration	080	Order reception + 1	15	Yes
Registration	Registration Acknowledgement		081	Registration reception + 1	15	Yes
Fund Order	Firm Acknowledgement of Fund Order		082	Order reception + 1	15	Yes
Firm Order	Fund Acknowledgement of Firm Order		083	Order reception + 1	15	Yes
Firm/Fund Exchange	Fund Confirmation of Exchange		084	Settlement day – 10	9	Yes
Fund Acknowledgement of Firm Order	Confirmation		085	Settlement day – 10	9	Yes
Firm Acknowledgement of Fund Order	Confirmation		085	Settlement day – 10	9	Yes
Firm Registration	Firm Order	Registration received before Order	086	Registration (Originated by Firm) reception + 1	15	Yes
Fund Registration	Fund Order	Registration received before Order	088	Registration (Originated by Fund) reception + 1	15	Yes
Pending Payment Acknowledgement	Payment Acknowledgement		100	Payment reception + 1	5	Yes

REMINDER RULES

Firm Prepaid Order	Acknowledgement of Firm Prepaid Order from Fund		102	Prepaid Order reception + 1	5	Yes
Prepaid Order Acknowledgement	Confirmation from Fund		103	Prepaid Order ACK record reception +1	5	Yes
Activity & Dist from Fund	Firm Ack to FUND		104	Activity & Dist record reception + 1	5	Yes
Activity & Dist Acknowledgement	Confirmation		105	Activity & Dist reception + 1	9	Yes
Security Profile Request	Fund Ack, Reject	Sec Profile request Received	106	Request reception + 1	5	No
Payment Record	Prepaid Order		107	Payment receive from Firm to Fund reception + 1	5	No
Prepaid Order Confirmation	Contract Note		108	Contract Note Date – 10	9	No
Order Confirmation	Contract Note		108	Contract Note Date – 10	9	Yes
Position Request	Fund Ack, Reject		109	Request reception + 1	5	No
Subscription Offer Announcement			111	15 days prior to Expiration	15	No
Tender Offer Announcement			112	15 days prior to Expiration	15	No
Firm Account Maintenance	Acknowledgement of Account Maintenance		113	Account Maintenance +1	5	No
Fund Account Maintenance	Acknowledgement of Account Maintenance		113	Account Maintenance +1	5	No
Account Registration	Account Transfer	Registration Type = 2	114	Receipt of Account Registration	15	No
Account Transfer	Fund Account Transfer Acknowledgement		115	Account Transfer reception + 1	15 ³	Yes

REMINDER RULES						
Fund Account Transfer Acknowledgement (Process Flow Indicator = 1)	Account Transfer Confirmation	(Process Flow Indicator = 1)	116	Transfer Completion Date – 9	9 ⁴	Yes

¹ Reminders will be sent for this number of days or until SD-2 (2 days before Settlement), whichever comes first

² Settling status set to 3. These items and Non-settling input items (Settling status = 0) are closed in the last cycle on the day before Settlement

³ Pending Account Transfer Acknowledgement will be sent for 15 days or Anticipated Transfer Completion Date, whichever comes first.

⁴ Pending Account Transfer Confirmation will start 9 AIP business days before Transfer Completion Date unless the Transfer Completion Date is shorter than 9 days then it will start immediately.

DATATRAK CONFIRM REJECTS/WARNINGS

DATATRAK CONFIRM REJECTS/WARNINGS		
Warning/Reject Message	Explanation	Impact & Solution
Missing Header Record	All incoming files require a Data-Trak header record. This header record acts as control for the entire process. It identifies the data being submitted.	This file will not be processed. You must resubmit the file with the appropriate header record.
Header Fields Incorrect	An error has been found with the record layout of your DataTrak header record.	This file will not be processed. You must resubmit the file with a corrected header record.
No SYSID Match on Pre-Edit	The System Identifier (SYSID) was not recognized by DATATRAK.	This file will not be processed. Verify and correct the SYSID and resubmit the file.
Input Date Does Not Match Today's Date	You have submitted a file with an incorrect date in your DataTrak header record.	This file will not be processed until you contact Middleware Operations to have the file accepted manually. However, if the reject is caused by the DataTrak pre-edit not being current then the reject would be overridden and taken in
Record Length from JCL Does Not Agree with Pre-Edit File	You have submitted a file with an incorrect record length.	This file will not be processed. Contact Middleware Operations for further instructions.
Block Size of Input Does Not Agree With Pre-Edit File	You have submitted a file with an incorrect block size.	This file will not be processed. Contact Middleware Operations for further instructions.
Input Record Failed Pre-Edit or Literal Check	The structural validation of the file by DataTrak has found format errors in your data.	This file will not be processed. Please verify file's record layout (formats.nsc.com). You must correct the error(s) and resubmit the file.
Prior Submission and Dupe Input	Your firm has already submitted (and DataTrak has accepted) the same number of data records under this SYSID today.	This file will not be processed until you contact Middleware Operations and verify that the second file is not a duplicate of the first file. If you advise Middleware Operations to process the file, they will do so. If you determine that the file is a duplicate of an earlier file, they will exclude it from processing.
Limit Error: 15 or More Broker Numbers Not on Expected Master	Service Bureaus only. There is at least one broker number in the data that is not recognized by DataTrak and less than 15 records affected.	This file will not be processed until you resubmit the file with valid broker numbers that have been approved for this Service Bureau by NSCC.
REJ Input Needed	Your input file lacks input data records.	DataTrak has been set up to require input data from your firm. Contact Middleware Operations and confirm if you actually have no data to send.
End Exp Different Than Header	The End Record (DataTrak Trailer Record) has different information than the Header Record.	This file will not be processed until you contact Middleware Operations to have the

DATATRAK CONFIRM REJECTS/WARNINGS

End No End Found	No End Record was found.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
End Not Exp Different From Header	An End Record was found, but not expected, and it is different from the Header Record.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Rej-Fixed Exp; Var Actual	DataTrak expected a fixed-format input file, but the input file sent was actually in variable format.	This file will not be processed. You must resubmit the file with a fixed format.
Rej-Var Exp; Fixed Actual	DataTrak expected a variable-format input file, but the input file sent was actually in fixed format.	This file will not be processed. You must resubmit the file with a variable length format.
Rej-Fix Exp; Var* Missing	DataTrak expected a fixed-format input file, but the input file sent was actually in variable format, and the Header Record did not contain "*" in column 65 as required for variable files.	This file will not be processed. You must resubmit the file with a fixed format.
Rej-Var Exp; Var * Missing	DataTrak expected a variable-format input file, but the Header Record did not contain "*" in column 65, as required for variable files.	This file will not be processed. You must resubmit the file with the required "*" in column 65.
Broker No. in Detail Record Not on Expected Master	Service Bureaus only. You have submitted for a broker that is not on our expected master file.	This file will not be processed until you resubmit the file with valid broker numbers that have been approved for this Service Bureau by NSCC.
Prior Submission and Possible Dupe Input	You are set-up to send in one file a day. Your firm has already submitted data for this SYSID today. The first file sent was accepted for processing. The number of records in the second file does not match the first.	This file will not be processed until you contact Middleware Operations to have the file accepted manually
Prior Submission	You are set-up to send in one file a day. DataTrak has already received a transmission from your firm for this SYSID today, but it was rejected.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Broker No. in Detail Record Invalid	One or more FIELDS in the detail records is invalid (for example: non-numeric). The file may be accepted, but these records will not process successfully.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
End Not on Expected Master	DataTrak has found, but is not expecting, and End Record in your file.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.

DATATRAK CONFIRM REJECTS/WARNINGS

End Not Last Record in Batch	You submitted a file where the end record was not the last record in the file.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Reject- batch not numeric	You have submitted a file with a non-numeric multi-batch indicator.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Reject – batch received after lbi	You submitted a file after a last batch indicator was received in a previous file.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Reject – batch number too low	You submitted a file with batch indicator # less than your previous file.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Reject - batch number too high	You submitted a file with a batch indicator # greater than the number expected.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Reject – Last batch sequence error	Your file contained a character in the Last Batch Indicator field in your DataTrak Header Record (column 60) which was neither an “N” nor “Y”.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Reject – Broker count mismatch	You submitted a file with an end record that does not equal the total number of records submitted	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
No match on expected masterfile for header	You are not set-up on the DataTrak masterfile to submit a file under this SYSID.	This file will not be processed. Contact Middleware Operations for further instructions.
Detail input record failed pre-edit check	You submitted a file that does not meet the DataTrak pre-edit verification criteria.	This file will not be processed. Contact Middleware Operations for further instructions.
Header record on active input file – Cannot assume record length of 80	You have submitted a file with a record length that does not match with our pre-edit file	This file will not be processed. Contact Middleware Operations for further instructions.
Pre-edit process date not numeric change file and re-submit	You submitted a file with a processing date on your DataTrak header that was non numeric.	This file will not be processed. Contact Middleware Operations for further instructions.
Input has no records	You were not set-up on the DataTrak masterfile to submit a file for this SYSID with zero records.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
Skipped batch, expected batch <i>nnn</i> , next batch should be <i>nnn</i>	You have submitted a file with a DataTrak batch number sequence error.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
End record count submitted by broker mismatch	DataTrak has detected a possible record count out of balance with your file.	This file will not be processed. Contact Middleware Operations for

DATATRAK CONFIRM REJECTS/WARNINGS

8 digits header date but indicator is no	Your file was set-up for a 6-digit header date and the file contained an 8-digit header date.	This file will not be processed until you contact Middleware Operations to have the file accepted manually.
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FILE TYPE BLOCKING GROUPING

Group ID	Group Description	Record type	Record type Description
		061	Security General
		062	Security Announcement
		063	Security Contact
001	Order	001	Firm Order
001	Order	002	Fund Order
001	Order	003	Firm Acknowledgement of Fund Order
001	Order	004	Firm Reject of Fund Order
001	Order	005	Fund Acknowledgement of Firm Order
001	Order	006	Fund Reject of Firm Order
001	Order	007	Confirmation
001	Order	008	Correction
001	Order	009	Firm Exit of Order
001	Order	010	Fund Exit of Order
001	Order	011	Firm Order with Registration
001	Order	012	Fund Order with Registration
001	Order	025	Registration
001	Order	026	Registration Acknowledgement
001	Order	027	Registration Reject
001	Order	030	Payment
001	Order	031	Payment Acknowledgement
001	Order	032	Prepaid Firm Order
001	Order	036	Fund Acknowledgement of Prepaid Order
001	Order	037	Fund Reject of Prepaid Order
001	Order	038	Firm Exit of Prepaid Order
001	Order	040	Prepaid Order Confirmation
001	Order	041	Prepaid Order Correction
001	Order	042	Contract Note
001	Order	043	Prepaid Firm Order with Registration

Group ID	Group Description	Record type	Record type Description
002	Exchange	015	Firm Exchange
002	Exchange	016	Fund Exchange
002	Exchange	018	Fund Confirmation of Exchange
003	Documentation	094	Electronic Documentation Acknowledgement by Fund
003	Documentation	095	Electronic Documentation Reject by Fund
003	Documentation	096	Electronic Documentation Accepted by Fund
004	Valuation	060	Valuation
005	Activity	050	Activity and Distribution
005	Activity	054	Activity Acknowledgement
005	Activity	055	Activity Reject
005	Activity	056	Activity Confirmation
006	Commission	051	Commission
007	Position	052	Position
007	Position	067	Position Schedule Request
007	Position	068	Position Schedule Request Acknowledgement
007	Position	069	Position Schedule Request Reject
008	Account Maintenance	053	Account Maintenance
008	Account Maintenance	057	Account Maintenance Acknowledgement
008	Account Maintenance	058	Account Maintenance Reject
009	Security Profile Request	064	Security Profile Request
009	Security Profile Request	065	Security Profile Request Acknowledgement
009	Security Profile Request	066	Security Profile Request Reject
010	Account Transfer	201	Account Transfer
010	Account Transfer	202	Fund Account Transfer Acknowledgement
010	Account Transfer	203	Fund Reject of Account Transfer
010	Account Transfer	204	Firm Reject of Account Transfer
010	Account Transfer	205	Fund Exit of Account Transfer
010	Account Transfer	206	Firm Exit of Account Transfer
010	Account Transfer	207	Confirmation of Account Transfer
010	Account Transfer	208	Correction of Account Transfer

FOR MORE INFORMATION

Visit us on the web at:

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