



THOMSON REUTERS



US Insider Filing Feed Specification

Table of Contents

US INSIDER FILING FEED SPECIFICATION.....	1
TABLE OF CONTENTS.....	2
INSIDER FILING FEED OVERVIEW.....	3
FILE SPECIFICATION.....	5
FIELD DEFINITIONS.....	11
ATTACHMENT A – RELATIONSHIP CODES.....	16
ATTACHMENT B – SECURITY TITLES.....	18
ATTACHMENT C – TRANSACTION CODES	20
ATTACHMENT D – CLEANSE INDICATORS.....	22
ATTACHMENT E – SECTOR CLASSIFICATIONS.....	23
ATTACHMENT F – INDUSTRY CLASSIFICATIONS	24
ATTACHMENT G – STATE CODES	26
ATTACHMENT H – COUNTRY CODES.....	27
ATTACHMENT I – INSIDER FORM DESCRIPTIONS.....	28

Notice

This document contains confidential and proprietary information of Thomson Reuters and may be used only by a recipient designated by and for purposes specified by Thomson Reuters. The information in this document is subject to change without prior notice. Thomson Reuters is free to modify any of its products and services, in any manner and at any time. Nothing herein shall be interpreted to allow access to or use of products or services not covered by written agreements with Thomson Reuters.

Insider Filing Feed Overview

The Insider Filing Data Feed (IFDF) is designed to capture all U.S. insider activity as reported on Securities and Exchange Commission (SEC) Forms 3, 4, 5, and 144 in line-by-line detail. Because insiders tend to commit common errors and omit pertinent data when filing their documents, the data is submitted through a unique cleansing process. It adds value by making systematic interpretations on the accuracy of as-reported data and inserts “cleansed” fields for comparison. A cleanse code is included to denote the overall level of confidence in each record. By using alternate sources of data to interpret and correct inaccurate fields or omissions, Thomson Reuters ensures the most accurate information.

An additional file for average returns reveals which insiders’ prior trades have been the most predictive of subsequent stock returns.

Header File

The Header file consists of information included in the header on Forms 3, 4, 5, and 144. This information can be linked to the transactional files through the document control number. The file also captures insider filings with header information only, typical of the Form 3. (January 1986 to present)

Table One File

The Table One file contains all Table I non-derivative transaction and holdings information filed on Forms 3, 4, and 5. This file has several value-added fields including a cleanse indicator that identifies whether the data was cleansed using external data sources and an indicator of the degree of confidence that we have in each data record. (January 1986 to present)

Table Two File

The Table Two file contains all Table II derivative transaction and holdings information filed on Forms 3, 4, and 5. The data in this file includes open market derivative transactions as well as information on the award, exercise, and expiration of stock options. (January 1996 to present)

Form 144 File

The Proposed Sales file is derived from Form 144 filings. This data includes the expected date of sale, the number of securities to be sold, the estimated market value of the proposed sales, and the name of the executing broker. (June 1996 to present)

Average Returns File

The Returns file contains the information relating to how a stock has historically performed following an insider’s transactions. The data includes average 3-month and 6-month buy and sell returns, as well as the number of historic buy and sell decisions for each individual insider. (January 1986 to present)

Company File

The Company information file provides company specific identifiers including Security ID, Ticker, Company Name, Sector, and Industry. The Security ID field is the link back to the insider transactions file and proposed sales file. (June 1986 to present)

Amendment Concordance File

The Amendment Concordance is an incremental file that links an amended filing to its original filing by way of the document control number. This prevents double counting by allowing users to see which original filing is being replaced. Not all amended filings are included in this file, only those that meet our concordance criteria. (October 2002 to present)

10b5-1 flag File

The 10b5-1 flag is an incremental file that provides the 10b5-1 flag/indicator as reported by the Insider. The Rule appears to enable strategic trade.
(October 2002 to present)

Cleansed Fields

Form 4

Transaction Date: The insider-reported transaction date is verified for accuracy. If the transaction date is invalid, or not provided by the filer, data cleansing will populate the field using other contextual information found on the form.

Transaction Code: Examined for reasonableness using all available information on the form, including both Table I and Table II, to determine if it is consistent with other elements of the filing and regulatory rules. Value-added transaction codes (6 to 9) are provided in cases where the reported transaction code is invalid or clearly incorrect.

Transaction Price: Examined for reasonableness against the database to determine if the reported price is reasonable based on the stock's trading range for the transaction date. Applies only to purchases and sales. Examples of transaction prices that cannot be verified include options and gifts. If the price is unreasonable, the closing price is inserted (splits are taken into account in this comparison).

Transaction Amount (# Shares Traded): Examined for reasonableness against total shares outstanding. However, only the as-reported field is provided because it is not possible to verify against an outside source.

Acquisition/Disposition (A/D) Flag: Verified for accuracy based on the transaction code provided. If data cleansing finds an inconsistency, the correct flag will be placed in the corresponding cleansed field. For example, if the insider reports a purchase transaction (code 'P') with an A/D flag of 'D' for disposition, the cleansed field would provide the correct A/D flag of 'A' for acquisition.

Form 144

Proposed Number of Shares: Examined for reasonableness against total shares outstanding. A cleansed value is provided if the filer failed to properly account for a recent stock split and the market value is unreasonable.

Market Value of Transaction: Data cleansing calculates a derived price per share by dividing the aggregate market value by the number of shares to be sold. This derived price is examined for reasonableness, and if necessary, the closing price is used to calculate a cleansed value.

Proposed Date of Sale: The validity of the proposed sale date is reviewed. A more accurate date is provided if necessary by utilizing other information on the form.

File Specification

Data Delivery

Seven zip files are available via FTP every weekday at approximately 7 a.m. EST. Each compressed file contains one pipe-delimited text file with the same naming convention as the zip file. The files are incremental with the last three days of transactions included.

Each data file contains a key field or fields. When setting up your database, allow for only one record per key field (or field combination). If a record with the key field already exists in your database, replace the old record with the newly updated record.

File Name	Sort Order	Key Fields
Header.YYYYMMDD	Last Maint Date	DCN
Tableone.YYYYMMDD	Last Maint Date, DCN, Sequence Number	DCN and Sequence Number
Tabletwo.YYYYMMDD	Last Maint Date, DCN, Sequence Number	DCN and Sequence Number
Form144.YYYYMMDD	Last Maint Date, DCN, Sequence Number	DCN and Sequence Number
AvgReturns.YYYYMMDD	Person ID	Person ID and Security ID
Company.YYYYMMDD	Security ID	Security ID
Amend.YYYYMMDD	Create Date	Amendment DCN
Rule10b51Flag.yyyymmdd	Last Maint Date, DCN, Sequence Number	DCN and Sequence Number

Client Support

You may contact Client Services via Thomson Reuter's web portal:

<https://customers.reuters.com> (Contact US page) or

Phone: 1 888 989-8373

Please note: When submitting a query to client services, please note that you are referring to the "US Insider Filing" or "IFDF" feed and provide your ftp information details along with the exact file name you are facing the issue.

Header and Footer Format

Each file (Header, Tableone, Tabletwo, Form144, AvgReturns, Company, and Amend) contains a header and footer as the first and last records in the file.

Header Record Format

Column	Content
1 – 4	UHDR (constant)
5	<blank>
6 – 12	Date (format YYYYDDD for Julian date)

Footer Record Format

Column	Content
1 – 4	UTRL (constant)
5	<blank>
6 – 13	Record count for the file (including the header and footer lines)

File Format

The fields identified with (AR) are as-reported fields provided by the insider, available separate from the fields that have been verified and possibly modified by data cleansing. The fields ending with 'Adjust' are split-adjusted versions of the values.

Header File – Header.YYYYMMDD

#	Field	Type	Max Width
1	File Date	char	8
2	Create Date	char	8
3	DCN	char	10
4	Form Type	varchar	7
5	Person ID	int	14
6	Full Name	varchar	60
7	Street Address 1	char	40
8	Street Address 2	varchar	40
9	City	char	50
10	State	char	2
11	Postal Code	char	10
12	Country	char	3
13	Phone Number	char	18
14	Company Name	varchar	60
15	Security ID	decimal	11
16	Ticker	char	6
17	CUSIP Issuer	char	6
18	CUSIP Issue	char	2
19	CUSIP Check	char	1
20	Role Code 1	varchar	3
21	Role Code 2	varchar	3
22	Role Code 3	varchar	3
23	Role Code 4	varchar	3
24	SEC Receipt Date	char	8
25	Signature Date	char	8
26	Last Maintenance Date	char	8

Table One File – Tableone.YYYYYMMDD

#	Field	Type	Max Width
1	File Date	char	8
2	Create Date	char	8
3	DCN	char	10
4	Sequence Number	smallint	3
5	Form Type	char	7
6	Person ID	int	14
7	Full Name	varchar	60
8	Security ID	decimal	11
9	Ticker	char	6
10	CUSIP Issuer	char	6
11	CUSIP Issue	char	2
12	CUSIP Check	char	1
13	Company Name	varchar	60
14	Role Code 01	char	3
15	Role Code 02	char	3
16	Role Code 03	char	3
17	Role Code 04	char	3
18	Transaction Code	char	2
19	Acquisition/Disposition Flag	char	1
20	Transaction Date	char	8
21	Transaction Price	money	20
22	Ownership Type	char	1
23	Number of Shares	decimal	14
24	Resulting Shares Held	decimal	16
25	Amendment Indicator	char	1
26	SEC Receipt Date	char	8
27	Signature Date	char	8
28	Last Maintenance Date	char	8
29	Cleanse Indicator	char	1
30	Transaction Code (AR)	char	2
31	Acquisition/Disposition Flag (AR)	char	1
32	Transaction Price (AR)	money	20
33	Transaction Date (AR)	char	8
34	Option Sell Indicator	char	1
35	Security Title	char	5
36	Number of Shares Adjust	decimal	14
37	Resulting Shares Held Adjust	decimal	16
38	Transaction Price Adjust	money	20

Table Two File - Tabletwo.YYYYYMMDD

#	Field	Type	Max Width
1	File Date	char	8
2	Create Date	char	8
3	DCN	char	10
4	Sequence Number	smallint	3
5	Form Type	char	7
6	Person ID	int	14
7	Full Name	varchar	60
8	Security ID	decimal	11
9	Ticker	char	6
10	CUSIP Issuer	char	6
11	CUSIP Issue	char	2
12	CUSIP Check	char	1
13	Company Name	varchar	60
14	Role Code 01	char	3
15	Role Code 02	char	3
16	Role Code 03	char	3
17	Role Code 04	char	3
18	Transaction Code	char	2
19	Acquisition/Disposition Flag	char	1
20	Transaction Date	char	8
21	Derivative Type	char	5
22	Exercise Date	char	8
23	Expiration Date	char	8
24	Number of Derivatives	decimal	14
25	Underlying Security Title	char	5
26	Underlying Shares	decimal	14
27	Conversion/Exercise Price	money	20
28	Underlying Market Price	money	20
29	Resulting Derivatives Held	decimal	16
30	Ownership Type	char	1
31	Amendment Indicator	char	1
32	SEC Receipt Date	char	8
33	Signature Date	char	8
34	Last Maintenance Date	char	8
35	Cleanse Indicator	char	1
36	Transaction Code (AR)	char	2
37	Acquisition/Disposition Flag (AR)	char	1
38	Transaction Date (AR)	char	8
39	Number of Derivatives Adjust	decimal	14
40	Underlying Shares Adjust	decimal	14
41	Conversion/Exercise Price Adjust	money	20
42	Underlying Market Price Adjust	money	20
43	Resulting Derivatives Held Adjust	decimal	16

Form 144 File – Form144.YYYYYMMDD

#	Field	Type	Max Width
1	File Date	char	8
2	Create Date	char	8
3	DCN	char	10
4	Sequence Number	smallint	3
5	Person ID	int	14
6	Full Name	varchar	60
7	Security ID	decimal	11
8	Ticker	char	6
9	CUSIP Issuer	char	6
10	CUSIP Issue	char	2
11	CUSIP Check	char	1
12	Company Name	varchar	60
13	Role Code 01	char	3
14	Role Code 02	char	3
15	Role Code 03	char	3
16	Role Code 04	char	3
17	Broker Name	varchar	60
18	Proposed Number of Shares	decimal	16
19	Market Value of Transaction	money	20
20	Proposed Sale Date	datetime	8
21	Nature of Acquisition	varchar	50
22	Amendment Indicator	char	1
23	SEC Receipt Date	char	8
24	Signature Date	char	8
25	Last Maintenance Date	char	8
26	Cleanse Indicator	char	1
27	Market Value of Transaction (AR)	money	20
28	Proposed Number of Shares (AR)	decimal	16
29	Proposed Sale Date (AR)	char	8
30	Proposed Number of Shares Adjust	decimal	16

Individual Returns – AvgReturns.YYYYYMMDD

#	Field	Type	Max Width
1	Person ID	int	14
2	Security ID	dec	(11,0)
3	Average 3 Month Return Buys	dec	(13,4)
4	Average 3 Month Return Sells	dec	(13,4)
5	Average 6 Month Return Buys	dec	(13,4)
6	Average 6 Month Return Sells	dec	(13,4)
7	Buy Count	int	14
8	Sell Count	int	14

Company File – Company.YYYYYMMDD

#	Field	Type	Max Width
1	Security ID	decimal	11
2	Company Number	char	10
3	Ticker	char	6
4	Company Name	varchar	60
5	Sector Code	char	2
6	Industry Code	char	2
7	CUSIP Issuer	char	6
8	CUSIP Issue	char	2
9	CUSIP Check	char	1

Amendment Concordance File – Amend.YYYYYMMDD

#	Field	Type	Max Width
1	Amendment DCN	char	10
2	Link Status	char	1
3	Effective Date	char	8
4	Original DCN	char	10
5	Last Maintenance Date	char	8
6	Last Operator ID	char	8
7	Create Date	char	8
8	DML Flag	char	1

10b5-1 Flag File – Rule10b51Flag.yyyymmdd

#	Field	Type	Max Width
1	DCN	char	10
2	Sequence Number	smallint	3
3	Table Type	char	1
4	Flag_indicator	char	1
5	Last Maintenance Date	char	8
6	Create Date	char	8

Field Definitions

Acquisition/Disposition Flag – An indicator of 'A' for an acquisition, 'D' for a disposition, or '9' if the code is missing or invalid and could not be determined from the transaction code. This indicator should accompany each transaction code reported by the insider. If this field is not provided or is inconsistent with the reported transaction code, the data cleansing process will correct the acquisition/disposition code. The as-reported code, including blank codes, is always available in the Acquisition/Disposition (AR) field.

Amendment DCN – The document control number of an amended filing. The DCN listed in this field should replace the DCN listed in the “Original DCN” field in the Amendment Concordance file.

Amendment Indicator – Indicates whether a record represents an amendment made to an earlier filing. If the filing represents an amendment to an earlier filing, an “A” will appear in this field. Otherwise, the field will be left blank.

Average 3 Month Return Buys – The average 3-month performance returns following a given insider's purchase decisions. When calculating returns, similar transactions are aggregated into a seven-day period.

Average 3 Month Return Sells – The average 3-month performance returns following a given insider's sell decisions. When calculating returns, similar transactions are aggregated into a seven-day period.

Average 6 Month Return Buys – The average 6-month performance returns following a given insider's purchase decisions. When calculating returns, similar transactions are aggregated into a seven-day period.

Average 6 Month Return Sells – The average 6-month performance returns following a given insider's sell decisions. When calculating returns, similar transactions are aggregated into a seven-day period.

Broker Name – The name of the executing broker from Form 144.

Buy Count – The number of historic buy decisions by the insider.

City – The insider's reported city of residence.

Cleanse Indicator – The Thomson Reuters proprietary data cleansing process verifies the accuracy and reasonableness of insider reported figures by reference to external sources. Data such as transaction prices or acquisition/disposition indicators that appear erroneous or unreasonable are corrected by substituting information from alternative sources. The Cleanse Indicator indicates Thomson Reuters' level of confidence concerning the accuracy of a particular record. (See Attachment D for the complete list of cleanse indicators).

Company Name – The name of the company (or issuer) at the time of the filing.

Company Number – An internal company number.

Conversion/Exercise Price – The cost per unit to the insider to convert the derivative security into a non-derivative security (e.g. the exercise or strike price).

Country – A code identifying the insider's reported country of residence. (See Attachment H for a list of the country codes).

Create Date – The creation date of the record (in the format YYYYMMDD).

CUSIP Issuer – The first 6 digits of the company's CUSIP number for which the insider is affiliated at the time of the transaction. The CUSIP number is a unique identifier for issuers and issues of securities and financial instruments. Issuer CUSIP refers to the company. Full refreshes contain the CUSIP of the security at the time of the refresh. Ongoing updates contain the CUSIP at the time of the filing. Inactive securities will be populated with the last available CUSIP information for that security.

CUSIP Issue – The 7th and 8th digits of the CUSIP number for which the insider is affiliated at the time of the transaction. The CUSIP number is a unique identifier for issuers and issues of securities and financial instruments. Issue CUSIP refers to the security type (e.g. common stock or preferred stock). Full refreshes contain the CUSIP of the security at the time of the refresh. Ongoing updates contain the CUSIP at the time of the filing. Inactive securities will be populated with the last available CUSIP information for that security.

CUSIP Check – The 9th digit of the CUSIP number that provides a means of mathematically verifying the accuracy of the CUSIP issuer and issue numbers.

DCN – The document control number is a unique number assigned to each document that allows the information to be tracked back to the original source.

Derivative Type – An abbreviated description of the derivative type exchanged in the transaction. (See Attachment B for a description of the derivative types).

DML Flag – An internal field indicating an Insert (I), Update (U), or Delete (D).

Effective Date – Contained in the Amendment Concordance file, this field represents the date and time that the link was established between an amended filing and its original DCN (in the format YYYYMMDD).

Execution Date – The date in which the executing broker, dealer, or plan administrator notifies the reporting person of execution of the transaction. The execution date can be no longer than the third business day following the trade date. This field is used to determine whether or not the transaction is reported in a timely manner. (i.e. before the end of the second business day following the day of execution).

Exercise Date – The earliest date the derivative may be exercised. If the as-reported exercise date is in the future, but the reported transaction is an option exercise, the transaction date is substituted for the exercisable date during data cleansing. If the insider fails to provide the exercisable date, then the field is left blank.

Expiration Date – The expiration date for the derivative position. If the as-reported expiration date precedes the transaction date, the transaction date is substituted for the expiration date during data cleansing. If the insider fails to provide the expiration date, the Expiration Date field is left blank.

File Date – For ongoing data updates, this field represents the date the file was created (in the format YYYYMMDD). For historical data, this field represents the various dates when the records were created or updated and would have last been sent out in the regular updates.

Form Type – The type of form the insider filed, with possible values of 3, 4, 5, or 144. (See Attachment I for a description of the forms).

Flag Indicator - Value of Y or N, indicating whether transaction is part of a Rule10b5-1 trading plan.

Full Name – The filing insider's complete name in the order of last name, first name, middle name and suffix.

Industry Code – A code identifying the industry in which the company primarily operates. (See Attachment F for the complete list of industries).

Last Maintenance Date – The last day that a record was modified (in the format YYYYMMDD).

Last Operator ID – An internal field.

Link Status – This field should always be populated with “A”, indicating that the link between the original DCN and the amendment DCN is active.

Market Value of Transaction – The total market value of the proposed sale. A common mistake made by insiders is to report the market capitalization of the company, rather than the market value of the proposed transaction. The data cleansing process corrects this type of error by comparing the derived price per share with an external pricing source. If this is corrected (or filled in the case of missing data) the as-reported value is always available in the Market Value of Transaction (AR) field.

Nature of the Acquisition – A description of how the shares were acquired by the insider. Examples include shares acquired through the exercise of stock options or shares acquired by the founder during an initial public offering.

Number of Buy Decisions – The number of times an insider has historically purchased shares at this company. Note that decisions span a seven-day period.

Number of Derivatives – The number of derivatives exchanged in the transaction.

Number of Sell Decisions – The number of times an insider has historically sold shares at this company. Note that decisions span a seven-day period.

Number of Shares – The number of shares exchanged in the transaction.

Option Sell Indicator – Identifies a sale that is related to the exercise of options. The indicator works at the document level. Possible values include all (A), partial (P), none (N), or blank.

Original DCN – In the Amendment Concordance file, this field indicates the DCN that should be replaced by the “Amendment DCN”.

Ownership Type – The form of the insider’s beneficial ownership. Possible values include direct (D), indirect (I), or blank. Direct beneficial ownership applies to equity securities held in the insider’s name, or in the name of a broker, bank or nominee on behalf of the insider. Indirect ownership occurs when an insider’s position creates a reportable pecuniary interest (e.g. securities held in a trust when the insider is a beneficiary (investment partnership) and/or securities held by members of the insider’s immediate family sharing the same household).

Person ID – A Thomson Reuters internally assigned unique identifier that allows for consistent and accurate identification of individual insiders. This identifier ensures that an insider is not represented multiple times (e.g. John Ronald Smith, John R. Smith, etc.) within his or her own company. This unique identifier also allows the user to accurately track an individual’s transactions over time.

Phone Number – The insider’s phone number, if provided.

Postal Code – The insider’s reported zip code or foreign postal code.

Proposed Number of Shares – The number of shares that the insider intends to sell within 90 days. The insider may then later elect to sell only a portion of that total. To ensure the highest level of accuracy, this number is subjected to a check to insure the proposed number of shares falls within a reasonable range. If the proposed number of shares to be sold is not provided by the insider but the market value of the proposed transaction is, the cleansing process derives a proposed number of shares to be sold and checks it for reasonableness. The as-reported number can be found in the Proposed Number of Shares (AR) field.

Proposed Sale Date – The expected sale date (in the format YYYYMMDD). A Form 144 is effective for 90 days from the time it is filed. The date provided is the insider’s best estimate of the future sale date. As a practical matter, most insiders file a Form 144 just prior to (or on the same day of) a sale. Since the Form 144 must be filed prior to a sale of restricted stock, it serves as an early warning notification of upcoming sales. Both cleansed and as-reported fields are provided in the feed.

Resulting Shares/Derivatives Held – The insider's ownership position (direct or indirect) in the issuer's securities at the time of the transaction.

Role Code – The insider's roles or positions within the company, as reported on the filing. (See Attachment A for the complete list of possible role codes).

SEC Receipt Date – The date (SEC Stamp Date) when the filing was received by the Securities and Exchange Commission (in the format YYYYMMDD).

Sector Code – A code identifying the sector in which the company primarily operates. (See Attachment E for the complete list of sectors).

Security ID – A Thomson Reuters internally assigned unique identifier that allows for consistent and accurate identification of securities. It allows the user to link company data, regardless of changes in company name or ticker.

Security Title – A brief description of the security, such as common or preferred. (See Attachment B for a list of security titles).

Sell Count – The number of historic sell decisions by the insider.

Sequence Number – An identifier for each of the individual transactions on a form since a single filing may contain multiple transactions. The Sequence Number can be used in conjunction with the DCN to uniquely identify every record.

Signature Date – The date that the filing was signed by the insider or by a person authorized to sign on behalf of the insider (in the format YYYYMMDD).

State – The two-character abbreviation for the insider's reported state of residence. This field applies only for domestic addresses. (See Attachment G for a list of the state codes).

Street Address 1 – The insider's reported street address.

Street Address 2 – The insider's reported suite or building number. A P.O. Box number may also be included, if provided in addition to the street address.

Table Type – Value of 1 or 2, indicating whether the transaction is from Table 1 or Table 2 of the Form 4 filing.

Ticker – The company's ticker symbol for which the insider is affiliated at the time of the transaction. If the company is inactive at the time that the data is run, the ticker field will be blank.

Transaction Code – A code provided by the insider that describes the nature of the underlying transaction. Examples of valid transaction codes include, "P" for open market purchase, "S" for open market sale, or "X" for a conversion (exercise) of a derivative security into a non-derivative security. The list of allowable values is codified by the Securities and Exchange Commission. (See Attachment C for a list of the transaction codes). Data cleansing plays an especially important role in verifying as-reported transaction codes. Insiders frequently report incorrect or erroneous codes, particularly in cases involving more complex transactions, such as those related to options, rights, convertible securities, and phantom stock. When a code reported by an insider is clearly incorrect, data cleansing assigns a corrected (cleansed) code. Note that if the transaction code is not provided by the insider, it will not be filled in unless there is clear evidence of the appropriate code. If a transaction code is corrected by the data cleansing process, the as-reported transaction code is still available in the Transaction Code (AR) field.

Transaction Date – Either a transaction date or a holdings report date (in the format YYYYMMDD). The transaction date field is evaluated for accuracy by reference to records of valid market dates. If the date is modified by the data cleansing process, the as-reported transaction date is still available in the Transaction Date (AR) field.

Transaction Price – The transaction price. All reported transaction prices are verified to ensure the accuracy of the information. If the reported price falls outside a reasonable range (by reference to an external pricing source), the data cleansing process substitutes the security's closing price for the reported transaction date. The as-reported transaction price is always available in the Transaction Price (AR) field.

Underlying Market Price – The per share or unit value of the derivative security.

Underlying Security Title – A brief description of the security underlying the derivative transaction, such as common or preferred. (See Attachment B for a list of security titles).

Underlying Shares – The number of (non-derivative) shares underlying a derivative transaction. For example, in the exercise of options, this field contains the number of shares underlying the option exercise.

Attachment A – Relationship Codes

The role codes in the table below should be prioritized in terms of RELATION1 to RELATION4 according to the following hierarchy:

Level 1 (highest): CB, CEO, CO, GC, P

Level 2: AC, AF, CC, CFO, CI, CT, D, DO, EC, FC, GP, H, M, MC, MD, O, OB, OD, OP, OS, OT, OX, S, SC, TR, VC

Level 3: AV, C, EVP, OE, GM, LP, SVP, T, VP

Level 4: AI, B, BC, BT, CP, DS, F, FO, IA, R, SH, UT, VT, X

Classification	Code	Description
Directors	CB	Chairman of the Board
	D	Director
	DO	Director and Beneficial Owner of more than 10% of a Class of Security
	H	Officer, Director and Beneficial Owner
	OD	Officer and Director
	VC	Vice Chairman
Committees	AC	Member of the Advisory Committee
	CC	Member of the Compensation Committee
	EC	Member of the Executive Committee
	FC	Member of the Finance Committee
	MC	Member of Committee or Advisory Board
	SC	Member of the Science/Technology Committee
Officers	AV	Assistant Vice President
	CEO	Chief Executive Officer
	CFO	Chief Financial Officer
	CI	Chief Investment Officer
	CO	Chief Operating Officer
	CT	Chief Technology Officer
	EVP	Executive Vice President
	O	Officer
	OB	Officer and Beneficial Owner of more than 10% of a Class of Security
	OP	Officer of Parent Company
	OS	Officer of Subsidiary Company
	OT	Officer and Treasurer
	OX	Divisional Officer
	P	President
	S	Secretary
	SVP	Senior Vice President
	VP	Vice President
Affiliates	AF	Affiliated Person
	AI	Affiliate of Investment Advisor
	GC	General Counsel
	IA	Investment Advisor

Classification	Code	Description
Beneficial Owners	B	Beneficial Owner of more than 10% of a Class of Security
	BC	Beneficial Owner as Custodian
	BT	Beneficial Owner as Trustee
Other	C	Controller
	CP	Controlling Person
	DS	Indirect Shareholder
	F	Founder
	FO	Former
	GM	General Manager
	GP	General Partner
	LP	Limited Partner
	M	Managing Partner
	MD	Managing Director
	OE	Other Executive
	R	Retired
	SH	Shareholder
	T	Trustee
	TR	Treasurer
	UT	Unknown
	VT	Voting Trustee
	X	Deceased

Attachment B – Security Titles

Code	Security Description
ADR	American Depository Receipts
BEN	Beneficial Shares
BOND	Bond
CALL	Call Option
CLLR	Collar or Similar Security Title
COM	Common Stock
COM A	Common Stock, Class A
COM B	Common Stock, Class B
COM C	Common Stock, Class C
COM D	Common Stock, Class D
COM E	Common Stock, Class E
COM F	Common Stock, Class F
COM G	Common Stock, Class G
COM H	Common Stock, Class H
COM I	Common Stock, Class I
COM J	Common Stock, Class J
COM K	Common Stock, Class K
COM L	Common Stock, Class L
COM M	Common Stock, Class M
COM N	Common Stock, Class N
COM O	Common Stock, Class O
COM P	Common Stock, Class P
COM Q	Common Stock, Class Q
COM R	Common Stock, Class R
COM S	Common Stock, Class S
COM T	Common Stock, Class T
COM U	Common Stock, Class U
COM V	Common Stock, Class V
COM W	Common Stock, Class W
COM X	Common Stock, Class X
COM Y	Common Stock, Class Y
COM Z	Common Stock, Class Z
COMNV	Common Stock, Non-Voting
CTF	Certificate
CVD	Convertible Debentures
CVP	Convertible Preferred
CVS	Convertible Securities
DEFR	Deferred Security, Award, or Compensation
DIREO	Non-Employee Director Stock Option
DIRO	Director's Stock Options
EMPO	Employee Stock Option
EQSWP	Equity Swap
EQUIV	Common Stock Equivalents

Code	Security Description
PAIR	Paired Shares
PART	Partnership or Partnership Interest
PERF	Performance Shares
PFD	Preferred Stock
PFD A	Preferred Stock Series A
PFD B	Preferred Stock Series B
PFD C	Preferred Stock Series C
PFD D	Preferred Stock Series D
PFD E	Preferred Stock Series E
PFD F	Preferred Stock Series F
PFD G	Preferred Stock Series G
PFD H	Preferred Stock Series H
PFD I	Preferred Stock Series I
PFD J	Preferred Stock Series J
PFD K	Preferred Stock Series K
PFD L	Preferred Stock Series L
PFD M	Preferred Stock Series M
PFD N	Preferred Stock Series N
PFD O	Preferred Stock Series O
PFD P	Preferred Stock Series P
PFD Q	Preferred Stock Series Q
PFD R	Preferred Stock Series R
PFD S	Preferred Stock Series S
PFD T	Preferred Stock Series T
PFD U	Preferred Stock Series U
PFD V	Preferred Stock Series V
PFD W	Preferred Stock Series W
PFD X	Preferred Stock Series X
PFD Y	Preferred Stock Series Y
PFD Z	Preferred Stock Series Z
PFDDU	Preferred Depositary Units
PHNTM	Phantom Stock
PUT	Put Option
RCPT	Receipt
RGHTS	Rights
RSTK	Restricted Stock
SAR	Stock Appreciation Right
SBI	Shares of Beneficial Interest
SH	Shares
UKN	Unknown
UTS	Units
UTS A	Units, Series A
UTS B	Units, Series B

EXFND	Exchange Fund or Similar Security Title
FWD	Forward Sale
ISO	Incentive Stock Option
NONQ	Non-Qualified Stock Option
NTS	Notes (Convertible or Otherwise)
OPTNS	Options
ORD	Ordinary Shares
ORD A	Ordinary Shares, Series A
ORD B	Ordinary Shares, Series B
ORD C	Ordinary Shares, Series C
ORD D	Ordinary Shares, Series D
ORD E	Ordinary Shares, Series E
ORD F	Ordinary Shares, Series F
ORD G	Ordinary Shares, Series G
ORD H	Ordinary Shares, Series H
ORD I	Ordinary Shares, Series I
ORD J	Ordinary Shares, Series J
ORD K	Ordinary Shares, Series K
ORD L	Ordinary Shares, Series L
ORD M	Ordinary Shares, Series M
ORD N	Ordinary Shares, Series N
ORD O	Ordinary Shares, Series O
ORD P	Ordinary Shares, Series P
ORD Q	Ordinary Shares, Series Q
ORD R	Ordinary Shares, Series R
ORD S	Ordinary Shares, Series S
ORD T	Ordinary Shares, Series T
ORD U	Ordinary Shares, Series U
ORD V	Ordinary Shares, Series V
ORD W	Ordinary Shares, Series W
ORD X	Ordinary Shares, Series X
ORD Y	Ordinary Shares, Series Y
ORD Z	Ordinary Shares, Series Z

UTS C	Units, Series C
UTS D	Units, Series D
UTS E	Units, Series E
UTS F	Units, Series F
UTS G	Units, Series G
UTS H	Units, Series H
UTS I	Units, Series I
UTS J	Units, Series J
UTS K	Units, Series K
UTS L	Units, Series L
UTS M	Units, Series M
UTS N	Units, Series N
UTS O	Units, Series O
UTS P	Units, Series P
UTS Q	Units, Series Q
UTS R	Units, Series R
UTS S	Units, Series S
UTS T	Units, Series T
UTS U	Units, Series U
UTS V	Units, Series V
UTS W	Units, Series W
UTS X	Units, Series X
UTS Y	Units, Series Y
UTS Z	Units, Series Z
UTSLP	Units of Limited Partnership
WT	Warrants

Attachment C – Transaction Codes

Code	Description
General Transaction Codes	
P	Open market or private purchase of non-derivative or derivative security.
S	Open market or private sale of non-derivative or derivative security.
V	Transaction voluntarily reported earlier than required (does not appear on Form 5).
Rule 16b-3 Transaction Codes	
A	Grant, award or other acquisition pursuant to Rule 16b-3(d).
D	Disposition to the issuer of issuer equity securities pursuant to Rule 16b-3(e). Typically related to forfeiture of stock due to failure to meet performance targets or insider leaving the company, but can also be conversion by company of security to another security class.
F	Payment of exercise price or tax liability by delivering or withholding securities incident to the receipt, exercise or vesting of a security issued in accordance with Rule 16b-3.
I	Discretionary transaction in accordance with Rule 16b-3(f) resulting in acquisition or disposition of issuer securities.
M	Exercise or conversion of derivative security exempted pursuant to Rule 16b-3 (acquired pursuant to employee stock option plan).
Derivative Securities Codes	
C	Conversion of derivative security.
E	Expiration of short derivative position.
H	Expiration (or cancellation) of long derivative position with value received.
O	Exercise of out-of-the-money derivative security.
X	Exercise of in-the-money or at-the-money derivative security (acquired in the open market).
Other Section 16(b) Exempt Transactions and Small Acquisition Codes	
G	Bona fide gift. Typically the insider gifting away securities.
L	Small acquisition under Rule 16a-6.
W	Acquisition or disposition by will or the laws of descent and distribution.
Z	Deposit into or withdrawal from voting trust.
Other Transaction Codes	
J	Other acquisition or disposition (all-purpose code used when no other standard code is sufficiently specific).
K	Transaction in equity swap or instrument with similar characteristics.
U	Disposition pursuant to a tender of shares in a change of control transaction.
Value Added Transaction Codes	
6	Transaction code reported as an M or C and as a disposition of non-derivative securities. This combination is invalid and data cleansing cannot determine with any confidence which of the elements of the transaction were reported incorrectly.
7	Disposition of exercised securities. Disposition may be an open market sale or return of securities to the issuer, the exact nature cannot be determined.
8	A holdings record (without an associated transaction record) was reported on Form 4 or 5.
9	Transaction code cannot be determined from the reported transaction code (i.e. there are two or more valid characters reported, or at least one invalid character, reported for the transaction code).
Inactive Transaction Codes (no longer in use as of August 1996)	
B	Participant-directed transaction in ongoing acquisition plan pursuant to Rule 16b-3(d)(2) (except for intra-plan transfers specified in Code I).
N	Participant-directed transactions pursuant to Rule 16b-3(d)(1).
Q	Transfer pursuant to a qualified domestic relations order.

R	Acquisition pursuant to reinvestment of dividends or interest (DRIPS).
T	Acquisition or disposition transaction under an employee benefit plan other than pursuant to Rule 16b-3.
3	Unidentifiable historic transaction code from Form 3.
4	Unidentifiable historic transaction code from Form 4.

Attachment D – Cleanse Indicators

Indicator	Meaning	Description
R	Data verified through cleansing process	Record passed all data cleansing checks for reasonableness.
H	Cleansed, with a very high level of confidence	All data cleansing updates were made with high confidence.
L	Cleansed	One or more data cleansing actions were undertaken but secondary sources were unavailable for complete verification.
I	Improved	Some data elements were improved (inserted or replaced) in order to make the data usable. In some cases, records with this cleanse indicator may contain data that could not be verified or was determined to be outside of a reasonable range.
C	Corresponding record added	A record added to non-derivative table or derivative table in order to correspond with a record on the opposing table.
W	Mis-reported holdings record	Identifies an improperly reported holdings record on the derivative table. This occurs when the insider reports a holdings value in the number of derivatives or number of underlying shares field (and no value was reported for resulting derivatives held).
Y	Informational	An as-reported holdings value identified by data cleansing.
S	Security not maintained, no cleansing attempted	The security does not meet the collection requirements.
A	Attempted cleansing, data appears unreasonable or inconsistent	Numerous data elements were missing or invalid and reasonable assumptions could not be made.

Attachment E – Sector Classifications

Sector	Sector Name
01	Finance
02	Healthcare
03	Consumer Non-Durables
04	Consumer Services
05	Consumer Durables
06	Energy
07	Transportation
08	Technology
09	Basic Industries
10	Capital Goods
11	Public Utilities
99	Miscellaneous
<blank>	Unclassified

Attachment F – Industry Classifications

Sector	Industry	Industry Name
01	01	Finance & Loan
01	02	Financial Services
01	03	Savings And Loans
01	04	Banking
01	05	Insurance
01	06	Investments
01	07	Leasing
01	09	Undesignated Finance
01	10	Multi-Industry Finance
01	30	Eafe Banking
01	35	Eafe Financial Services
01	48	Eafe Insurance
01	64	Eafe Real Estate
02	01	Drugs
02	02	Hospital Supplies
02	03	Hospitals
02	04	Biotechnology
02	05	Medical Supplies
02	06	Services To Medical Prof
02	07	Home Health Care
02	09	Undesignated Health
02	45	Eafe Health Care
02	99	Eafe Hea Multi-Industry
03	01	Clothing
03	03	Cosmetics
03	04	Food Processors
03	05	Beverages
03	06	Home Products
03	07	Leisure Time
03	09	Tobacco
03	12	Undesignated Conr Non Du
03	40	Eafe Beverages & Tobacco
03	50	Eafe Food & Household
03	51	Eafe Recreation
04	01	Communications
04	02	Leisure
04	03	Retailing - Foods
04	04	Retailing - Goods
04	05	Industrial Services
04	07	Undesignated Conr Svc
04	33	Eafe Broadcast & Pub
04	41	Eafe Bus & Pub Service
04	46	Eafe Leisure & Tourism

Sector	Industry	Industry Name
06	08	Alternative Energy
06	42	Eafe Energy Sources
06	44	Eafe Energy Equipment
07	01	Airlines
07	02	Railroads
07	03	Trucking
07	05	Maritime
07	06	Multi-Ind Transport
07	07	Undesignated Transport
07	62	Eafe Transportation R&R
07	99	Eafe Tra Multi-Industry
08	01	Computer Mfrs
08	03	Electronics
08	04	Software & Edp Services
08	07	Other Computers
08	08	Semiconductors/Component
08	09	Photo-Optical Equipment
08	10	Electronic Syst/Devices
08	11	Office/Comm Equip
08	12	Undesignated Technology
08	54	Eafe Data Processing
08	56	Eafe Electronic Corp
08	99	Eafe Tec-Multi Industry
09	01	Building & Related
09	02	Chemicals
09	03	Containers
09	04	Metal Fabricators & Dist
09	06	Forest Products
09	08	Steel
09	09	Textiles
09	10	Nonferrous Base Metals
09	11	Precious Metals
09	12	Multi-Ind Basic
09	57	Eafe Chemicals
09	59	Eafe Metals NonFer
09	60	Eafe Metals Steel
09	73	Eafe Gold Mining
09	99	Eafe Bas Multi Industry
10	01	Defense
10	03	Electrical
10	04	Machinery
10	05	Shipbuilding
10	06	Truck Mfg

Sector	Industry	Industry Name
04	51	Eafe Merchandising
04	98	Eafe Intl Trading
05	01	Automotive Mfg
05	02	Auto Part Mfg
05	03	Home Building
05	04	Home Furnishings
05	05	Leisure Products
05	06	Recreational Vehicles
05	07	Rubber
05	08	Tools And Hardware
05	13	Undesignated Conr Dur
05	31	Eafe Appliances
05	36	Eafe Automobiles
06	01	Oil
06	02	Coal
06	05	Undesignated Energy
06	07	Gas

Sector	Industry	Industry Name
10	07	Building Materials
10	08	Office Products
10	10	Multi-Ind Cap Good
10	11	Undesignated Capital
10	74	Eafe Building Materials
10	77	Eafe Electrical & Elect
10	78	Eafe Industrial Comp
10	79	Eafe Machinery & Eng
11	01	Electrical Utilities
11	02	Gas Utilities
11	03	Telephone Utilities
11	05	Water Utilities
11	80	Eafe Utilities
11	81	Eafe Telecommunications
99	99	Miscellaneous
99	00	Unclassified
<blank>	<blank>	Unclassified

Attachment G – State Codes

State / Possession	Code
Alabama	AL
Alaska	AK
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
District of Columbia	DC
Florida	FL
Georgia	GA
Hawaii	HI
Idaho	ID
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA
Maine	ME
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO
Montana	MT

State / Possession	Code
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Ohio	OH
Oklahoma	OK
Oregon	OR
Pennsylvania	PA
Puerto Rico	PR
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Vermont	VT
Virgin Islands	VI
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY

Attachment H – Country Codes

Country	Code
Argentina	AG
Australia	AU
Austria	AI
Bahamas	BS
Bangladesh	BH
Barbados	BB
Belgium	BG
Bermuda	BU
Bolivia	BL
Botswana	BO
Brazil	BZ
Bulgaria	BR
Canada	CN
Cayman Islands	CI
Channel Islands	CH
Chile	CL
China	CC
Colombia	CB
Costa Rica	CR
Croatia	RC
Cyprus	CY
Czech Republic	CZ
Denmark	DN
Dominican Republic	DO
Egypt	EG
Finland	FN
France	FR
Germany	GE
Ghana	GH
Greece	GK
Guam	GU
Hong Kong	HK
Hungary	HN
Iceland	IC
India	II
Indonesia	IO
Ireland	IR
Israel	IS
Italy	IT
Jamaica	JM
Japan	JA
Jordan	JO
Kazakhstan	KA
Kenya	KN

Country	Code
Kuwait	KU
Liechtenstein	LC
Luxembourg	LX
Malaysia	MY
Mauritius	MR
Mexico	MX
Monaco	MM
Netherlands	NL
Netherlands, Antilles	NT
New Zealand	NZ
Nigeria	NG
Norway	NR
Paraguay	PA
Pakistan	PK
Panama	PM
Papua New Guinea	PN
Peru	PU
Philippines	PH
Poland	PL
Portugal	PT
Puerto Rico	PR
Russia	RS
Saudi Arabia	SA
Singapore	SG
Slovakia	SR
Slovenia	SV
South Africa	ZA
South Korea	SK
Spain	SP
Sri Lanka	SK
Sweden	SN
Switzerland	SZ
Taiwan	TW
Thailand	TH
Trinidad & Tobago	TT
Turkey	TK
United Arab Emirates	AE
United Kingdom	UK
Uruguay	UG
Venezuela	VZ
Virgin Islands, British	VG
Virgin Islands, US	VI
Zimbabwe	ZM

Attachment I – Insider Form Descriptions

Corporate insiders are defined broadly as those that have "access to non-public, material, insider information". This standard varies by access within different companies. Insiders must file the following forms with the U.S. Securities and Exchange Commission.

Form 3 – Initial Statement of Beneficial Ownership

An initial holdings statement filed by all directors and officers (has material, non-disclosed information), and holders of 10% or more of the stock of a company registered with the SEC, even if no shares are owned. Form 3 details the number of shares owned as well as the number of warrants, rights, convertible bonds, and options to purchase common stock.

This document must be filed no later than 10 days after an insider becomes affiliated with a company, regardless of whether the insider owns any shares, and changes must be submitted on Form 4.

Form 4 – Statement of Changes of Beneficial Ownership

An amendment to Form 3, reporting a purchase, sale, option grant, option exercise, gift, acquisition, etc. of registrant's securities. It is required whenever there is a material change in the holdings of company insiders. A Form 4 includes sections for a header, Table I (non-derivative securities), Table II (derivative securities), and footnotes.

Prior to August 29, 2002, Form 4s had to be filed by the tenth day of the calendar month following their transaction. The Sarbanes-Oxley Act of 2002 amended Section 16(a), now requiring insiders to report such a change in ownership before the end of the second business day following the execution of their transaction. Additionally, beginning July 30, 2003, the Act requires insiders to electronically file their Form 4 documents via the EDGAR system.

Form 5 – Annual Statement of Change in Beneficial Ownership

An annual filing for exempt transactions not required on a Form 4. Exempt transactions may include small transactions and certain transactions such as gifts of shares received from another party or small transfers within company plans.

A Form 5 submission is required from any insider who has at least one transaction which was not reported during the year. It is due to the SEC no later than 45 days after the company's fiscal year ends, or within six months after an insider ends affiliation with the company.

Form 144 – Declaration of Intention to Sell Restricted Stock

A notice of the proposed sale of restricted securities or securities held by an affiliate of the issuer in reliance on Rule 144 when the amount to be sold during any three month period exceeds 500 shares or units or has an aggregate sales price in excess of \$10,000. If the securities are restricted, then they cannot be sold until after the required holding period (typically one year after the date the affiliate paid the entire purchase price). These sellers may not necessarily be insiders, as non-insiders (affiliates or shareholders) may own restricted stock. It is typically granted by corporations as a form of compensation where the recipient gets the stock at a discount to the current market price.

A Form 144 must be filed on or before the date of the actual sale. A Form 144 is not a transaction, since no shares are actually sold. Filers have 90 days to sell the specified shares or submit a new form. Once a proposed sale is filed, they are not obligated to complete the sale, nor are they required to sell the proposed number of shares. If the shares are subsequently sold, and the seller is an insider, then a Form 4 is required.