



**9.3 Redemption
 Processing
 (REDEMx, REDMMx) via
 CCF/CCF-II: Function
 User's Guide**



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- April 2002 Added EUR Euro Dollar to Appendix C.
- April 2010 Added two new intra-day slices – REDLRA, REDLRB, for lottery results.
- Nov 2010 Added Activity Type Field to intra-day lottery slices – REDLRA, REDLRB.
- April 2012 Added new intra-day files for MMI's per new IPA feed – REDMMG, REDMMC, REDMMA.
- June 2019 Added section for Partial Call Total Lottery Amount. Appears in Positions 470-483: 13 Partial Call. This information pertains to activities 74 and 76.



9.3 Redemption Processing (REDEMx, REDMMx) via CCF/CCF-II: Function User's Guide

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1 Objectives of This Chapter

The objectives of this chapter are to give information about:

- Redemption processing
- Required transmission record formats

2 Redemption Functions

The following functions provide various kinds of redemption information:

- REDEMG: information on individual redemptions
- REDEMA: information on agents involved in a particular redemption, including identification and address information
- REDEMC: comments in text format concerning a particular redemption
- REDEMEX: information on all called certificates of a particular redemption
- REDEML: all lottery information concerning a specific redemption (participants receive information only on their own lottery activity)
- REDLRA - REDLRB: intra-day lottery information concerning a specific redemption. At approximately 08:00AM and 03:00PM DTCC will provide two mutually exclusive intra-day lottery result files (participants receive information only on their own lottery activity)
- REDMMG: information on individual redemptions (MMI redemptions originating from IPA)
- REDMMA: information on agents involved in a particular redemption, including identification and address information (MMI redemptions originating from IPA)
- REDMMC: comments in text format concerning a particular redemption (MMI redemptions originating from IPA)



2.1 Redemption Functions Availability

FUNCTION	DESCRIPTION
REDEMG	07:30 p.m. (information on individual redemptions)
REDEMA	07:30 p.m. (agent information concerning a particular redemption)
REDEMC	07:30 p.m. (comments concerning a particular redemption)
REDEMX	07:30 p.m. (called certificate information for a particular redemption)
REDLRA	08:00 a.m. (start of day intra-day lottery results)
REDLRB	03:00 p.m. (afternoon intra-day lottery results)
REDEML	06:30 p.m. (cumulative end-of-day lottery results)
REDMMG	02:00 p.m. (information on individual redemptions)
REDMMA	02:00 p.m. (agent information concerning a particular redemption)
REDMMC	02:00 p.m. (comments concerning a particular redemption)

Note: All times are EST.



3 Record Information

REDEMG and REDMMX files are available via CCF and CCF-II.

- Users requesting the functions via CCF normally receive files consisting of a CCF Header record followed by the various functions detail records.
- Users requesting the functions via CCF-II receive files consisting of CCF-II Header and Trailer Record records separated by detail records.

The CCF Header record, CCF-II Header and Trailer records, and the detail records are described on the following pages of this section.

3.1 CCF Header Record

When HEADER=YES is specified as a CCFDTFDB parameter, the first record on the function file is a Header record. The Header record contains information regarding the creation of the file. The CCF Header record format is shown below.

CCF HEADER RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
1	6	Character	Data Type Requested	Data type name with which this data was requested: REDEMG REDMMG REDEMA REDMMA REDEMC REDMMC REDEMX REDEML REDLRA REDLRB
7	6	Character	Data Type Created	Data type name with which this data was created: REDEMG REDMMG REDEMA REDMMA REDEMC REDMMC REDEMX REDEML REDLRA REDLRB
13	8	Character	Data Date	mm/dd/yy
21	8	Character	Load Date	mm/dd/yy
29	8	Character	Load Time	hh:mm:ss
37	2	Binary	Record Size	Size of each data record



CCF HEADER RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELDNAME	FIELDDESCRIPTION
39	4	Binary	Block Count	Number of data blocks input to CCFDTFDB
43	4	Binary	Record Count	Number of data records
47	???	Character	Filler	DTC use only; do not use.



3.2 CCF-II Header and Trailer Records

The format of each CCF-II Header and Trailer record is described below. Please note that the Header and Trailer records are identical except for the first and last field of each record.

CCF-II HEADER AND TRAILER RECORD—DTC TRANSMITS TO USER				
POSITION	LENGTH	FORMAT	FIELDNAME	FIELDDESCRIPTION
1	3	Character	Record ID	HDR or TLR
4	4	Character	Signon ID	Signon ID
8	6	Character	Data Type Requested	Data type name with which this data was requested: REDEMG REDMMG REDEMA REDMMA REDEMC REDMMC REDEMX REDEML REDLRA REDLRB
14	6	Character	Data Type Created	Data type name with which this data was created: REDEMG REDMMG REDEMA REDMMA REDEMC REDMMC REDEMX REDEML REDLRA REDLRB
20	8	Character	Data Date	mm/dd/yy
28	8	Character	Load Date	mm/dd/yy
36	8	Character	Load Time	hh:mm:ss
44	4	Numeric	Record Length	Record Length of data requested
48	8	Numeric	Record Number	Number of data records in file
56	4	Numeric	Segments per Data Type	Number of 80-byte records per data type requested
60	15	Character	Filler	DTC use only; do not use.



CCF - II HEADER AND TRAILER RECORD—DTC TRANSMITS TO USER

POSITION	LENGTH	FORMAT	FIELDNAME	FIELDDESCRIPTION
75	6	Numeric	Numbering Sequence	Numbering Sequence. Used as a data integrity check: HDR 000000 TLR 999999



3.3 General Redemption Information File

The General Redemption Information File is a collection of information about an individual redemption. The format of the general redemption record is shown below.

General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
1	26	Character	Transaction Header	For positions 1–26, see Appendix A: DTF REDEM(G),(C),(A),(X), & (L) Transaction Header. REDMM(G),(C), & (A) Transaction Header.
27	10	Numeric	Redemption ID	A random number assigned by DTC identifying a call
37	1	Character	Record Type	For a description of record types, see Appendix D: DTF/REDEMG Record Types.
38	3	Character	Activity Type	For a description of activity types, see Appendix B: DTF/REDEMG Activity Types.
41	2	Character	Country Code	Not currently used
43	9	Character	Redemption CUSIP Number	9-character issue identifier
52	1	Character	International Check Digit	Not currently used
53	2	Numeric	Redemption Sequence Number	A system-generated number to distinguish between calls if the same CUSIP appears more than once for the same activity code.
55	48	Character	CUSIP Description	The DTC description of the security.
103	1	Character	DTC Eligible Indicator	Indicates if CUSIP is DTC eligible Valid entries are: Y DTC N Not DTC eligible
104	8	Numeric	Create Date	ccyyymmdd The date the Redemption record was created.
112	8	Numeric	Publication Date	ccyyymmdd Publication date, which is, the date on



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
				which called certificate numbers are made public.
120	8	Numeric	Redemption Date	ccyymmdd Date on which a redemption is to be paid.
128	8	Numeric	Distribution Date	ccyymmdd Date on which proceeds are distributed for activity types 86F and 86P.
136	8	Numeric	Potential Distribution Date	ccyymmdd Date on which we may receive a payment for a security that has defaulted. (For activities: 86N) Note: Must be a calendar date that is equal to or greater than default date.
144	8	Numeric	FC VOI Entry Start Date	ccyymmdd First day foreign currency election instructions can be entered through Redemptions Foreign Currency system via (RCUR) PTS function.
152	8	Numeric	FC VOI Entry End Date	ccyymmdd Last date foreign currency election instructions can be entered through Redemptions Foreign Currency system via (RCUR) PTS function.
160	8	Numeric	Default Date	ccyymmdd The date that the security went into default. (For activities: 86N)
168	8	Numeric	Last Day for Early Redemption	ccyymmdd Last day to submit instructions to redeem prior to maturity. (For activities: 70)
176	1	Character	Fund Type Indicator	An indicator that identifies whether the proceeds of a redemption activity are to be paid through the Same-Day Fund Settlement system. S Same-Day Funds
177	1	Character	MMI Indicator	An indicator that identifies whether the security is a Money Market Instrument. Valid entries are: Y this security is defined by DTC to be an MMI N this security is not a MMI (system default)
178	1	Character	Conditional Payment Indicator	N No conditional payment (system default) Y Call is conditional upon paying agent being funded by issuer prior to the redemption date S Call is conditional upon a special event (Refer to Comments record for further information).



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
179	1	Character	Transferrable Indicator	(For activities: 86N) An indicator that specifies whether an issuer is still processing transfer requests on a security for which DTC has received a default notice. Y transferrable (system default) N not transferrable
180	1	Character	Pay Interest Indicator	(For activities 86N) An indicator that specifies whether an issuer is still paying interest on a security for which DTC has received a default notice. Y still paying interest N not paying interest (system default)
181	1	Character	Foreign Currency Eligible Indicator	An indicator that specifies whether a foreign currency issue is eligible for foreign currency redemption proceeds election via RCUR PTS function. Y eligible for election N not eligible for election M mandatory election (All participants must submit instructions)
182	3	Character	Foreign Currency Type	aaa The type of foreign currency in which the issue is denominated. For currency codes, see Appendix C: DTF/REDEMG Foreign Currency Type Translations.
185	9	Character	Contra-CUSIP	(For activities 74, 76) A temporary CUSIP number assigned to a security by DTC to complete the redemption function
194	49	Character	Direct Inquiries	(Free-form text) A DTC employee or department that can answer questions regarding a redemption
243	49	Character	Direct Inquiries (Continued)	(Free-form text) A DTC employee or department that can answer questions regarding a redemption
292	10	Numeric	Lottery Base Denomination	999999999 Minimum denomination in which certificates are available. For uniquely denominated issues, DTC's lottery does not (to the extent possible) reduce positions below this quantity.
302	9	Numeric	Lottery Denomination Increment	999999999 (For CUSIPS that are uniquely denominated) Minimum increment, permissible only above the base denomination.



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
311	14	Numeric	Principal Rate	99999999.999999 Amount of principal dollars being paid on redemption date per \$1000 of face value of debt or per share of equity
325	5	Numeric	Adjusted Interest Rate	99.999 A rate specified by an issuer that is different from the actual interest rate
330	10	Numeric	Accrued Income Rate	9999.999999 Amount of dollars of accrued interest per \$1000 of face value of debt or accrued dividend per share of equity
340	13	Numeric	Currency Conversion Rate	Conversion rate to US dollar format is 9999999.999999
353	1	Character	Comments Indicator	Y There are comments associated with the Redemption ID N Comments do not exist for the Redemption ID
354	1	Character	Agent Indicator	Y There is agent info associated with the Redemption ID N Agent info does not exist for the Redemption ID
355	1	Character	Payout Indicator	Y Payout information exists for this redemption N There is no payout information for this redemption
356	1	Character	Certificate Indicator	Y There are certificates associated with the Redemption ID N Certificates do not exist for the Redemption
357	1	Character	Lottery Indicator	An indicator which specifies whether the redemption was run in a lottery; this field applies to all partial redemptions; valid entries are: Y A lottery has been run against the redemption CUSIP and lottery results do exist. N A lottery has not yet been run against the redemption CUSIP. Results do not exist at this time. X A lottery will not be run because DTC has no inventory or DTC has no called inventory. Note: This field contains a space if the redemption is not a partial redemption.
Positions 358–469: 112 Redemption CUSIP Information				



General Redemption Record Format					
Position	Length	Format	Field Name	Field Description	
358	8	Numeric	First Day For Deposit	ccyymmdd	First day to resume deposits
366	8	Numeric	Last Day For Deposit	ccyymmdd	Last day to enter deposits
374	8	Numeric	First Day for Withdrawals	ccyymmdd	First day to resume withdrawals
382	8	Numeric	Last Day for Withdrawal	ccyymmdd	Last day to enter withdrawals
390	8	Numeric	First Day for Reorg Deposits	ccyymmdd	First day to deposit certificates through Reorg Deposits Service via (DAMP) PTS function
398	8	Numeric	Last Day for Reorg Deposits	ccyymmdd	Last day to deposit certificates through Reorg Deposits Service via (DAMP) PTS function
406	8	Numeric	First Day for COD	ccyymmdd	First day to resume COD
414	8	Numeric	Last Day for COD	ccyymmdd	Last day to intercede
422	8	Numeric	First Day for Deliver	ccyymmdd	First day to resume deliver orders
430	8	Numeric	Last Day for Delivery	ccyymmdd	Last day to enter deliver orders
438	8	Numeric	First Day for Pledge	ccyymmdd	First day to resume pledges
446	8	Numeric	Last Day for Pledge	ccyymmdd	Last day to enter pledges
454	8	Numeric	First Day for Segregate	ccyymmdd	First day to resume segregations
462	8	Numeric	Last Day for Segregate	ccyymmdd	Last day to enter segregations



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
Positions 470–648: 178 Partial Pre-Refundings/Non Pre-Refundings The following information pertains to activity 76P				
470	2	Character	Pre-Ref Country Code	Not currently used
472	9	Character	Pre-Ref CUSIP Number	9-character issue identifier
481	1	Character	Pre-Ref International Check digit	Not currently used
482	1	Character	Pre-Ref Contra Indicator	Indicator of whether the pre-ref CUSIP is an actual (pre-ref) CUSIP or a contra CUSIP. Valid entries are: Y A contra CUSIP was used. N An actual pre-ref CUSIP was used.
483	48	Character	Pre-Ref CUSIP Description	Free-form text
531	8	Numeric	New Maturity Date	ccyymmdd New pre-refunded CUSIP maturity date
539	8	Numeric	Pre-Ref First Days For Deposit	ccyymmdd First day to resume deposits
547	8	Numeric	Pre-Ref First Day for Withdrawal	ccyymmdd First day to resume withdrawals
555	8	Numeric	Pre-Ref First Day for COD	ccyymmdd First day to resume COD
563	8	Numeric	Pre-Ref First Day for Pledge	ccyymmdd First day to resume pledges
571	8	Numeric	Pre-Ref First Day for Segregate	ccyymmdd First day to resume segregations
579	8	Numeric	Pre-Ref First Day for Delivery	ccyymmdd First day to resume deliver orders



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
587	2	Character	Non Pre-Ref Country Code	Not currently used
589	9	Character	Non Pre-Ref CUSIP Number	9-character issue identifier
598	1	Character	Non Pre-Ref International Check digit	Not currently used
599	1	Character	Non Pre-Ref Contra Indicator	Indicator of whether the non pre-ref CUSIP is an actual (non pre-ref) CUSIP or a contra CUSIP. Valid entries are: Y A contra CUSIP was used N An actual non pre-ref CUSIP was used
600	8	Numeric	Non Pre-Ref First Day For Deposit	ccyymmdd First day to resume deposits
608	8	Numeric	Non Pre-Ref First Day for Withdrawal	ccyymmdd First day to resume withdrawal
616	8	Numeric	Non Pre-Ref First Day for COD	ccyymmdd First day to resume COD
624	8	Numeric	Non Pre-Ref First Day for Pledge	ccyymmdd First day to resume pledges
632	8	Numeric	Non Pre-Ref First Day for Segregate	ccyymmdd First day to resume segregations
640	8	Numeric	Non Pre-Ref First Day for Delivery	ccyymmdd First day to resume deliver orders
648	1	Character		Reserved for future expansion
Positions 470–598: 122 Partial Defeasance/Non Defeasance The following information pertains to activity 76D				
470	2	Character	Def Country Code	Not currently used



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
472	9	Character	Def CUSIP Number	9-character issue identifier
481	1	Character	Def International Check digit	Not currently used
482	1	Character	Def Contra Indicator	Indicator of whether the defeased CUSIP is an actual (defeased) CUSIP or a contra CUSIP; valid entries are: Y A contra CUSIP was used N An actual defeased CUSIP was used
483	8	Numeric	Def First Day for Deposit	ccyymmdd First day to resume deposits
491	8	Numeric	Def First Day for Withdrawal	ccyymmdd First day to resume withdrawals
499	8	Numeric	Def First Day for COD	ccyymmdd First day to resume COD
507	8	Numeric	Def First Day for Pledge	ccyymmdd First day to resume pledges
515	8	Numeric	Def First Day for Segregate	ccyymmdd First day to resume segregations
523	8	Numeric	Def First Day for Delivery	ccyymmdd First day to resume deliver orders
531	2	Character	Non Def Country Code	Not currently used
533	9	Character	Non Def CUSIP Number	9-character issue identifier
542	1	Character	Non Def International Check Digit	Not currently used



General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
543	1	Character	Non Def Contra Indicator	Indicator of whether the non-feased CUSIP is an actual (non-defeased) CUSIP or a contra CUSIP. Valid entries are: Y A contra CUSIP was used N An actual non-defeased CUSIP was used
544	8	Numeric	Non Def First Day for Deposit	ccyymmdd First day to resume deposits
552	8	Numeric	Non Def First Day for Withdrawal	ccyymmdd First day to resume withdrawals
560	8	Numeric	Non Def First Day for COD	ccyymmdd First day to resume CODs
568	8	Numeric	Non Def First Day for Pledge	ccyymmdd First day to resume pledges
576	8	Numeric	Non Def First Day for Segregate	ccyymmdd First day to resume segregations
584	8	Numeric	Non Def First Day for Delivery	ccyymmdd First day to resume deliver orders
592	3	Numeric	Number of Days Accrued Interest	nnn Number of days of accrued interest; zeroes if unknown
595	3	Numeric	Accrued Interest Denominator	nnn Number of days on a yearly basis for which interest is calculated; zeroes if unknown
598	51	Character	Filler	DTC use only; do not use.

General Redemption Record Format				
Position	Length	Format	Field Name	Field Description
Positions 470–483: 13 Partial Call The following information pertains to activity 74, 76				
470	13	Numeric	Total Lottery Amount	999999999999 Total Lottery Amount, sum of the called positions for all participants



3.4 Agent File

The Agent File is a collection of information on agents involved in a particular redemption. It contains identification and address information. Please note that the Agent record corresponds to the General Redemption record through the Redemption ID field (position 27). See Section 4, General Redemption Information, on page 6.

AGENT RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
1	26	Character	Transaction Header	For positions 1–26, see Appendix A: DTF REDEM(G),(C),(A),(X), & (L) Transaction Header. REDMM(G),(C), & (A) Transaction Header.
27	10	Numeric	Redemption ID	A random number assigned by DTC identifying the call
37	1	Character	Record Type	A add record C change record D delete record
38	8	Character	Redemption Agent Number	A number assigned by DTC to identify the agent responsible for the distribution of redemption proceeds
46	1	Character	Agent Type ID	B Bearer R Registered
47	48	Character	Agent Name	Free-form text
95	48	Character	Agent Address	Free-form text, including street name and number
143	48	Character	Additional Address Information	Free-form text
191	20	Character	Agent City	Name of city
211	2	Character	Agent State	Standard 2-letter postal abbreviation
213	9	Character	Agent Zip	9-digit zip code
222	10	Character	Agent Phone Number	Area code, prefix, number (no parentheses or dashes)
232	2	Character	Country Code	Country code (see Appendix D)



AGENT RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
234*	9	Character	CUSIP	9-character issue identifier
243*	1	Character	International Check Digit	International check digit (see Appendix E)
244*	8	Numeric	Publication Date	ccyymmdd
252*	8	Numeric	Redemption Date	ccyymmdd



3.5 Comment File

The Comment File is a collection of information on any comments concerning a particular redemption in text format. Please note the Comment record corresponds to the General Redemption record through the Redemption ID field (position 27). See Section 4, General Redemption Information.

COMMENT RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
1	26	Character	Transaction Header	For positions 1–26, see Appendix A: DTF REDEM(G),(C),(A),(X), & (L) Transaction Header REDMM(G),(C), & (A) Transaction Header.
27	10	Numeric	Redemption ID	A random number identifying the call
37	1	Character	Record Type	A add record C change record D delete record
38	2	Numeric	Comments Sequence Number	A system-generated number incremented by 1 after 10 physical comment records have been created for the same redemption. There can be up to 10 comment records per Comment Sequence Number, Range of values = 1–10. For example, if there are 25 comment records created for a redemption, the Comments Sequence Number = 1 for the first 10 comment records created, 2 for the next 10 comment records created and 3 for the remaining 5 comment records.
40	2	Numeric	Total Comment Records	Total number of physical comment records that exist per Comments Sequence Number for a redemption. Range of values = 01–10
42	2	Numeric	Comment ID	Identifier of a specific physical comment record; range of values = 01–10. For example, if Total Comment Records = 3, then Comment ID = 1 for the first record, 2 for the second comment record and 3 for the third and last comment record.
44	70	Character	Comment Text	Free-form comment text up to a maximum of 700 bytes (that is, 10 x 70) of Comment Text per Comments Sequence Number and 700 bytes per redemption.



COMMENT RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
114*	2	Character	Country Code	Country code (see Appendix D)
116*	9	Character	CUSIP	9-character issue identifier
125*	1	Character	International Check Digit	International check digit (see Appendix E)
126*	8	Numeric	Publication Date	ccymmdd
134*	8	Numeric	Redemption Date	ccymmdd



3.6 Certificate File

The Certificate File is a collection of information on all called certificates of a particular redemption. Please note the Certificate record corresponds to the General Redemption record through the Redemption ID field (position 27). See Section 4, General Redemption Information File.

CERTIFICATE RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELDNAME	FIELD DESCRIPTION
1	26	Character	Transaction Header	For positions 1–26, see Appendix A: DTF REDEM(G),(C),(A),(X), & (L) Transaction Header
27	10	Numeric	Redemption ID	A random number identifying the call
37	1	Character	Record Type	A Add Record C Change Record D Delete Record
38	12	Character	Certificate Number	Certificate number
50	10	Numeric	Certificate Called Quantity	9(10)
60	1	Character	Redemption Notice Type	Valid entries are: C CEDE Notice U Universal Notice
61	2	Character	Filler	DTC use only; do not use.
63	9	Character	CUSIP	9-character identifier
72	1	Character	International Check Digit	International check digit (see Appendix E)
73	8	Numeric	Publication Date	ccymmdd
81	8	Numeric	Redemption Date	ccymmdd



3.7 Lottery Results File

The Lottery Results File is a collection of information that represents all lottery information concerning a specific redemption. Participants receive only their own lottery activity. Please note that the Lottery Results record corresponds to the General Redemption record through the Redemption ID field (position 27). See Section 4, General Redemption Information File, on page 6.

LOTTERY RESULTS RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
1	26	Character	Transaction Header	For positions 1–26, see Appendix A, DTF REDEM(G),(C),(A),(X), & (L) Transaction Header
27	10	Numeric	Redemption ID	A random number assigned by DTC identifying the call
37	1	Character	Record Type	A add record C change record D delete record
38	1	Character	Lottery Type	For a description of lottery types, refer to Appendix E. DTF/REDEML Record Types on p 52
39	3	Numeric	Lottery Sequence Number	A system generated number to distinguish between the series of lotteries run against a particular redemption
42	8	Numeric	Lottery Mainline Date	ccyymmdd Date the Called Amount is segregated
50	11	Numeric	Called Quantity	9(11) The quantity that has been determined to be redeemed if the participant had position in a redemption security
61	11	Numeric	Pub Date Position	9(11) Position held in a redemption security subject to a call
72	11	Numeric	Adjusted Position	9(11) Adjustment to position held in redemption security subject to call
83	11	Numeric	Current Position	9(11) Current position held in a redemption security
94	11	Numeric	Unpledged Position	9(11) General position (on as-of date) of free unpledged account



LOTTERY RESULTS RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
105	11	Numeric	Pledged Position	9(11) General position (on as-of date) of pledged account
116	11	Numeric	Investment Unpledged Position	9(11) General position (on as-of date) of investment unpledged account
127	11	Numeric	Investment Pledged Position	9(11) General position (on as-of date) of investment pledged account
138	11	Numeric	RRG Position	9(11) General position (on as-of date) of RRG account
149	11	Numeric	Total Position	9(11) General position (on as-of date) totals
160	8	Numeric	As-Of Date	ccyymmdd Date on which position is captured, calculated as the day before the call notice publication date
168	11	Numeric	Position Uncalled	9(11) position remaining after lottery is run
179*	2	Character	Country Code	Country code (see Appendix D)
181*	9	Character	CUSIP	9-character issue identifier
190*	1	Character	International Check Digit	International check digit (see Appendix E)
191*	8	Numeric	Publication Date	ccyymmdd
199*	8	Numeric	Redemption Date	ccyymmdd
207	2	Character	Country Code	International CUSIP country code
209	9	Character	Redemption Contra-CUSIP	Redemption contra-CUSIP
218	1	Character	International Check Digit	International CUSIP check digit



LOTTERY RESULTS RECORD FORMAT				
POSITION	LENGTH	FORMAT	FIELD NAME	FIELD DESCRIPTION
219	10	Numeric	Lottery Base Denomination	9999999999 Minimum denomination in which certificates are available; for uniquely denominated issues, DTC's lottery does not (to the extent possible) reduce positions below this quantity
229	9	Numeric	Lottery Denomination Increment	999999999 (For CUSIPS that are uniquely denominated) minimum increment, permissible only above the base denomination
238	14	Numeric	Principal Rate	99999999.999999 Amount of principal dollars being paid on redemption date per \$1000 of face value of debt or per share of equity
252	3	Character	Activity Type	For a description of activity types, see Appendix B: DTF/REDEMG Activity Types. This attribute available on intra day lottery files only (REDLRA, REDLRB).



Appendix A: DTF REDEM (G), (C), (A), (X) and (L), REDLR(A), (B) Transaction Header

DTF REDMM (G), (C) and (A) Transaction Header

The file loaded to the DTF database is either *generic* or *participant-specific*. If the file is generic, then every participant receives the same file. If the file is participant-specific, then each participant receives only their own file. The format for Transaction Header Format for Generic and Participant-Specific Files is shown below.

GENERIC/PARTICIPANT-SPECIFIC TRANSACTION HEADER FORMAT				
Position	Length	Format	Field Name	Field Description
1	1	Character	Type Indicator	* (Asterisk) output message indicator
2	1	Character	Test/Production Indicator	P
3	6	Character	Record Type	aaaaaa 6-character DTF function name
9	2	Character	Record Suffix	Allows the application area to send additional segments of the same type to create one complete record only if the application record size exceeds 1392 bytes; the first segment of a data record must be 01; valid values are 01, 02, etc.
11	2	Character	Version Number	aa Version identifier. Allows DTC to maintain multiple versions of the Record Type
13	6	Character	User Reference Number	Spaces (not currently in use)
19	8	Character	Generic/Specific	8-character Participant ID (for Participant-specific file) Blank (for generic file)



Appendix B: DTF/REDEMG and REDMMG Activity Types

The following are descriptions of the activity types denoting the different DTC redemption processes.

ACTIVITY TYPE	DESCRIPTION
70	CD Redemption
74	Corporate Partial Call
75F	Corporate Full Call
75M	Corporate Maturities
76	Muni Partial Call
76D	Muni Partial Defeasance
76P	Muni Partial Pre-Refunding
77D	Muni Full Defeasance
77F	Muni Full Call
77L	Muni Full Pre-Refunded (Late)
77M	Muni Maturities
77P	Muni Full Pre-Refunded
86F	Final Default Distribution
86N	Default Notices
86P	Interim Default Distribution
87F	UIT Terminations
87U	UIT Terminations/Unsold Assets
89	CMO Final Paydowns



Appendix C: DTF/REDEMG and REDMMG Foreign Currency Type Translations

The following are literal translations of Foreign Currency Types:

DTF/REDEMG, REDMMG FOREIGN CURRENCY TYPES	
F/C TYPE	DESCRIPTION
AAL	Cayman Land Dollar
ADP	Andorran Peseta
AED	UAE Dirham
AFA	Afghani
ALL	Lek
ANG	Netherlands Antillean Guilder
AON	New Kwanza
ARA	Austral
ATS	Shilling
AUD	Australian Dollar
AWG	Aruban Guilder
BBD	Barbados Dollar
BDT	Taka
BEF	Belgian Franc
BGL	Lev
BHD	Bahraini Dinar
BIF	Burundi Franc
BMD	Bermudian Dollar
BND	Brunei Dollar
BOB	Boliviano
BRE	Cruzeiro
BSD	Bahamian Dollar
BTN	Ngultrum
BWP	Pula
BZD	Belize Dollar
CAD	Canadian Dollar
CHF	Swiss Franc
CLF	Unidades De Fomento
CLP	Chilean Peso
CNY	Yuan Renminbi
COP	Colombian Peso
CRC	Costa Rican Colon
CSK	Koruna
CUP	Cuban Peso



DTF/REDEMG, REDMMG FOREIGN CURRENCY TYPES	
F/C TYPE	DESCRIPTION
CVE	Cape Verde Escudo
CYP	Cyprus Pound
DEM	Deutsche Mark
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
ECS	Sucre
EGP	Egyptian Pound
ESB	Convertible Peseta Accounts
ESP	Spanish Peseta
ETB	Ethiopian Birr
EUR	Euro Dollar
FIM	Markka
FJD	Fiji Dollar
FKP	Falkland Islands Pound
FRF	French Franc
GBP	Pound Sterling
GHC	Cedi
GIP	Gibraltar Pound
GMD	Dalasi
GNF	Guinea Franc
GRD	Drachma
GTQ	Quetzal
GWP	Guinea-Bissau Peso
GYD	Guyana Dollar
HKD	Hong Kong Dollar
HNL	Lempira
HTG	Gourde
HUF	Forint
IDR	Rupiah
IEP	Irish Pound
ILS	Shekel
INR	Indian Rupee
IQD	Iraqi Dinar
IRR	Iranian Rial
ISK	Iceland Krona
ITL	Italian Lira
JMD	Jamaican Dollar



DTF/REDEMG, REDMMG FOREIGN CURRENCY TYPES	
F/C TYPE	DESCRIPTION
JOD	Jordanian Dinar
JPY	Yen
KES	Kenyan Shilling
KHR	Riel
KMF	Comoro Franc
KPW	North Korean Won
KRW	Won
KWD	Kuwaiti Dinar
KYD	Cayman Islands Dollar
LAK	Kip
LBP	Lebanese Pound
LKR	Sri Lanka Rupee
LRS	Liberian Dollar
LSL	Loti
LYF	Luxembourg Franc
LYD	Libyan Dinar
MAD	Moroccan Dirham
MGF	Malagasy Franc
MMK	Kyat
MNT	Tugrik
MOP	Pataca
MRO	Ouguiya
MTL	Maltese Lira
MUR	Mauritius Rupee
MVR	Rufiyaa
MWK	Kwacha
MXP	Mexican Peso
MYR	Malaysian Ringgit
MZM	Metical
NGN	Naira
NIO	Cordoba Oro
NLG	Netherlands Guilder
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollar
OMR	Rial Omani
PAB	Balboa
PEN	Nueva Sol
PGK	Kina



DTF/REDEMG, REDMMG FOREIGN CURRENCY TYPES	
F/C TYPE	DESCRIPTION
PHP	Philippine Peso
PKR	Pakistan Rupee
PLZ	Zloty
PTE	Portuguese Escudo
PYG	Guarani
QAR	Qatari Rial
ROL	Leu
RWF	Rwanda Franc
SAR	Saudi Riyal
SBD	Solomon Islands Dollar
SCR	Seychelles Rupee
SDP	Sudanese Pound
SEK	Swedish Krona
SGD	Singapore Dollar
SHP	St. Helena Pound
SLL	Leone
SOS	Somali Shilling
SRG	Surinam Guilder
STD	Dobra
SUR	Rouble
SVC	El Salvador Colon
SYP	Syrian Pound
SZL	Lilangeni
THB	Baht
TND	Tunisian Dinar
TOP	Pa'Anga
TPE	Timor Escudo
TRL	Turkish Lira
TTD	Trinidad and Tobago Dollar
TWD	New Taiwan Dollar
TZS	Tanzanian Shilling
UGX	Uganda Shilling
UYP	Uruguayan Peso
VEB	Bolivar
VND	Dong
VUV	Vatu
WST	Tala
XAF	CFA Franc Beac
XAG	Silver



DTF/REDEMG, REDMMG FOREIGN CURRENCY TYPES	
F/C TYPE	DESCRIPTION
XAU	Gold
XBA	European Composite Unit (EURCO)
XBB	European Monetary Unit (EMU-6)
XBC	Euro Unit of Account-9 (EUA-9)
XBD	Euro Unit of Account - 17 (EUA-17)
XCD	East Caribbean Dollar
XDR	SDR Int'l Monetary Fund (IMF)
XEU	European Currency UNIT (ECU)
XFO	Gold Franc
XFU	UIC -Franc
XOF	CFA Franc Bceao
XPF	CFP Franc
XPT	Platinum
XXX	Transactions Without Currency
YER	Yemeni Rial
YUN	Yugoslavian Dinar
ZAL	Financial Rand
ZMK	Kwacha
ZRZ	Zaire
ZWD	Zimbabwe Dollar



Appendix D: ISO Country Codes

The following is a list of country codes in alphabetical order by code:

ISO CODE	COUNTRY NAME
AD	ANDORRA
AE	U.A.E.
AF	AFGHANISTAN
AG	ANTIGUA AND BARBUDA
AI	ANGUILLA
AL	ALBANIA
AM	ARMENIA
AN	NETH. ANTILLES
AO	ANGOLA
AQ	ANTARCTICA
AR	ARGENTINA
AS	AMERICAN SAMOA
AT	AUSTRIA
AU	AUSTRALIA
AW	ARUBA
AZ	AZERBAIJAN
BA	BOSNIA-HERZEGOVINA
BB	BARBADOS
BD	BANGLADESH
BE	BELGIUM
BF	BURKINA FASO
BG	BULGARIA
BH	BAHRAIN
BI	BURUNDI
BJ	BENIN
BM	BERMUDA
BN	BRUNEI DARUSSALAM
BO	BOLIVIA
BR	BRAZIL
BS	BAHAMAS
BT	BHUTAN
BV	BOUVET ISLAND
BW	BOTSWANA
BY	BELARUS
BZ	BELIZE
CA	CANADA
CC	COCOS (KEELING) ISLANDS



ISO CODE	COUNTRY NAME
CF	CENTRAL AFRICAN REPUBLIC
CG	CONGO
CH	SWITZERLAND
CI	COTE D'IVOIRE
CK	COOK ISLANDS
CL	CHILE
CM	CAMEROON
CN	CHINA
CO	COLOMBIA
CR	COSTA RICA
CS	CZECHOSLOVAKIA
CU	CUBA
CV	CAPE VERDE
CX	CHRISTMAS ISLAND
CY	CYPRUS
DE	GERMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALGERIA
EC	ECUADOR
EE	ESTONIA
EG	EGYPT
EH	WESTERN SAHARA
ES	SPAIN
ET	ETHIOPIA
FI	FINLAND
FJ	FIJI
FK	FALKLAND ISLANDS (MALVINAS)
FM	MICRONESIA
FO	FAEROE ISLANDS
FR	FRANCE
GA	GABON
GB	UNITED KINGDOM
GD	GRENADA
GE	GEORGIA
GF	FRENCH GUIANA
GG	GUERNSEY, C.I.
GH	GHANA
GI	GIBRALTAR
GL	GREENLAND



ISO CODE	COUNTRY NAME
GM	GAMBIA
GN	GUINEA
GP	GUADELOUPE
GQ	EQUATORIAL GUINEA
GR	GREECE
GT	GUATEMALA
GU	GUAM
GW	GUINEA-BISSAU
GY	GUYANA
HK	HONG KONG
HM	HEARD AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ
IR	IRAN (ISLAMIC REPUBLIC OF)
IS	ICELAND
IT	ITALY
JE	JERSEY, C.I.
JM	JAMAICA
JO	JORDAN
JP	JAPAN
KE	KENYA
KG	KYRGYZSTAN
KH	CAMBODIA
KI	KIRIBATI
KM	COMOROS
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REP. OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KY	CAYMAN ISLANDS
KZ	KAZAKHSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB	LEBANON



ISO CODE	COUNTRY NAME
LC	SAINT LUCIA
LI	LIECHTENSTEIN
LK	SRI LANKA
LR	LIBERIA
LS	LESOTHO
LT	LITHUANIA
LU	LUXEMBOURG
LV	LATVIA
LY	LIBYAN ARAB JAMAHIRIYA
MA	MOROCCO
MC	MONACO
MD	MOLDOVA, REPUBLIC OF
MG	MADAGASCAR
MH	MARSHALL ISLANDS
ML	MALI
MM	MYANMAR
MN	MONGOLIA
MO	MACAU
MP	NORTHERN MARIANA ISLANDS
MQ	MARTINIQUE
MR	MAURITANIA
MS	MONTSERRAT
MT	MALTA
MU	MAURITIUS
MV	MALDIVES
MW	MALAWI
MX	MEXICO
MY	MALAYSIA
MZ	MOZAMBIQUE
NA	NAMIBIA
NC	NEW CALEDONIA
NE	NIGER
NF	NORFOLK ISLAND
NG	NIGERIA
NI	NICARAGUA
NL	NETHERLANDS
NO	NORWAY
NP	NEPAL
NR	NAURU
NT	NEUTRAL ZONE (BTWN SAUDI & IRAQ)
NU	NIUE
NZ	NEW ZEALAND



ISO CODE	COUNTRY NAME
OM	OMAN
PA	PANAMA
PE	PERU
PF	FRENCH POLYNESIA
PG	PAPUA NEW GUINEA
PH	PHILIPPINES
PK	PAKISTAN
PL	POLAND
PM	ST. PIERRE AND MIQUELON
PN	PITCAIRN ISLAND
PR	PUERTO RICO
PT	PORTUGAL
PW	PALAU
PY	PARAGUAY
PZ	PANAMA CANAL ZONE
QA	QATAR
RE	REUNION
RO	ROMANIA
RU	RUSSIA
RW	RWANDA
SA	SAUDI ARABIA
SB	SOLOMON ISLANDS
SC	SEYCHELLES
SD	SUDAN
SE	SWEDEN
SG	SINGAPORE
SH	ST. HELENA
SI	SLOVENIA
SJ	SVALBARD AND JAN MAYEN ISLANDS
SL	SIERRA LEONE
SM	SAN MARINO
SN	SENEGAL
SO	SOMALIA
SR	SURINAME
ST	SAO TOME AND PRINCIPE
SV	EL SALVADOR
SY	SYRIAN ARAB REPUBLIC
SZ	SWAZILAND
TC	TURKS AND CAICOS ISLANDS
TD	CHAD
TF	FRENCH SOUTHERN TERRITORIES
TG	TOGO



ISO CODE	COUNTRY NAME
TH	THAILAND
TJ	TAJIKISTAN
TK	TOKELAU
TM	TURKMENISTAN
TN	TUNISIA
TO	TONGA
TP	EAST TIMOR
TR	TURKEY
TT	TRINIDAD AND TOBAGO
TV	TUVALU
TW	TAIWAN
TZ	TANZANIA, UNITED REPUBLIC OF
UA	UKRAINE
UG	UGANDA
UM	UNITED STATES MINOR OUTLYING ISLANDS
US	UNITED STATES
UY	URUGUAY
UZ	UZBEKISTAN
VA	VATICAN CITY STATE
VC	SAINT VINCENT AND THE GRENADINES
VE	VENEZUELA
VG	VIRGIN ISLANDS (BRITISH)
VI	VIRGIN ISLANDS, U.S.
VN	VIETNAM
VU	VANUATU
WF	WALLIS AND FUTUNA ISLANDS
WS	SAMOA
YE	YEMEN, REPUBLIC OF
YU	YUGOSLAVIA
ZA	SOUTH AFRICA
ZM	ZAMBIA
ZR	ZAIRE
ZW	ZIMBABWE



Example:	Issuer Number 392690	Issue Number QT
	3 9 2 6 9 0	26, Q 29, T
	$\begin{array}{r} \times 1 \\ 3 \end{array}$ $\begin{array}{r} \times 2 \\ 18 \end{array}$ $\begin{array}{r} \times 1 \\ 2 \end{array}$ $\begin{array}{r} \times 2 \\ 12 \end{array}$ $\begin{array}{r} \times 1 \\ 9 \end{array}$ $\begin{array}{r} \times 2 \\ 0 \end{array}$	$\begin{array}{r} \times 1 \\ 26 \end{array}$ $\begin{array}{r} \times 2 \\ 58 \end{array}$

Thus, $3 + 1 + 8 + 2 + 1 + 2 + 9 + 0 + 2 + 6 + 5 + 8 = 47$

The complement of the last digit of the sum becomes the check digit. The complement of 7 is 3. Therefore, the CUSIP number with the check digit would appear as:

392690 QT 3

Notes:

- Although the CUSIP and ISIN check digit routines are similar, they differ in the manner in which they multiply the numeric value assigned to a letter (A through Z).
- The CUSIP algorithm multiplies the two-position number assigned to a letter by a single number. Therefore, a T would convert to 29 and be multiplied by either 2 or 1, depending on where the letter was placed in the CUSIP. In the above example it is multiplied by 2 for a product of 58. Both digits are added independently to the calculation, adding a value of 13 (5+8) to the sum.
- The ISIN algorithm multiplies the two-position number assigned to a letter by two numbers. Therefore, a T would convert to 29 and the tens column would be multiplied by 1 and the units column by 2 (or 2 and 1) depending on where it was placed in the CUSIP. In the above example it would be multiplied as follows: $(2 \times 1) + (9 \times 2)$. All resulting digits (three in this example) are added independently to the calculation, adding a value of 11 (2+1+8) to the sum.



Appendix F: DTF/REDEMG and REDMMG Record Types

The following are descriptions of the codes denoting the types of records within the general file record types:

DTF/REDEMG RECORD TYPES	
RECORD TYPE	DESCRIPTION
A	Add Record
C	Change Record
D	Delete Record



Appendix G: DTF/REDEML Record Types

DTF/REDEMG RECORD TYPES	
LOTTERY TYPE	DESCRIPTION
O	Original
S	Supplemental
P	Partial Reversal
R	Rescission Reversal
F	Full Reversal