



## **CCF/CCF-II/MDH Transmission Guides**

# **16.11 Investors Voluntary Redemption and Sales System IVR1 and IVR5 Function User's Guide**



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# 16.11 Investors Voluntary Redemption and Sales System via CCF and MDH: MDH IVR1 and CCF IVR5 Function User's Guide

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## 1 Objectives of This Chapter

The objectives of this chapter are to:

- Give an overview of the Investors Voluntary Redemption and Sales System (IVR1 and IVR5) function.
- Illustrate the formats of the required records.

## 2 Introduction

This document describes how Transfer Agents and Sponsors use the newly developed service for transmitting settlement detail for Participant Investors Voluntary Redemption and Sale instructions to DTC.

Transfer Agents and sponsors should familiarize themselves with the DTC document Interface Control Manager CCF and MDH User's Guide for Transaction Input. This ICM document describes new standards for transaction processing using DTC's automated systems. Specifics relating to the operation, error processing and recovery of CCF and MDH transmissions are addressed in the ICM document.

### 2.1 Function Description

The settlement details that can be supplied are the Settlement Date, Transaction Type, BuyBack/Redeem decision, Bid Price per unit and Accrued Interest per unit. Each Settlement detail field has a corresponding change indicator field that must be changed from N to Y when modifying the corresponding detail field. DTC will bypass any detail field that does not have its corresponding change indicator updated to Y.

The function names, start and cutoff times associated with each interface are as follows:

| Function Name | Start time - Cutoff Time           |
|---------------|------------------------------------|
| MDH - IVR1    | 7 p.m. - 11:00 p.m. (Eastern Time) |
| CCF - IVR5    | 7 p.m. - 10:45 p.m. (Eastern Time) |



## 2.2 Holiday Processing

Describe the availability of processing for the various types of holidays that DTC is subject to.

- All Closed; Banks, Exchange and DTC closed: (New Year's Day, Martin Luther King Day, President's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day). No processing.
- Banks Closed, Exchange Open and DTC Open (Columbus Day, Veterans Day). File available.
- Banks Open, DTC Open, Exchange Closed (Good Friday). File Available.

## 2.3 Communication Protocol Requirements

Although the DATA record formats are consistent over MDH and CCF, each system requires additional control records to aid in processing the data records. Following is an example of what is required as input from the User and what is returned from DTC in the response file:

| Input                              | Output               |
|------------------------------------|----------------------|
| MDH DATA Records only              | See MDH User's Guide |
| CCF Data Records<br>Trailer Record | CCFSUM Record        |

**Note:** Any data records in error will follow the CCFSUM record.



### 3 Record Formats

The input record for IVR1, IVR5 is defined below. This record contains a Transaction Header and Application Detail Data and has a record length of 474 bytes.

**Note:** For MDH a maximum of 10 records or, depending on the input record length, the total number of records that can fit in a 4000-byte input block.

#### 3.1 Standard Transaction Header for CCF and MDH

The Transaction Header is prefixed to every application record. The field layout of the 26-byte header is defined as:

| Standard Transaction Header for CCF and MDH |        |           |                           |  |
|---|--------|-----------|---------------------------|--|
| Position                                    | Length | Format    | Field Name                | Field Contents   |
| 1   | 1      | Character | Feedback Indicator        | Used to indicate if any errors were encountered during processing; this field is to be left blank on input.  |
| 2   | 1      | Character | Production/Test Indicator | This is a required field.<br>P = Production<br>T = Test  |
| 3   | 6      | Character | Record Type               | IVREOD   |
| 9   | 2      | Numeric   | Record Suffix             | Used to indicate the Record Number on single and multiple data records within a transaction.   |
| 11  | 2      | Numeric   | Version Number            | Used to indicate which version the data is in; for example, latest or previous format.   |
| 13  | 6      | Character | User Reference Number     | Used by transmitting party to uniquely identify the transaction (optional).  |
| 19  | 8      | Character | Addressee                 | The entity on behalf of whom the transaction is being processed; right aligned, zero filled for numeric addressee or Mnnnnnnn for non-numeric addressee. |



### 3.2 IVR1 and IVR5 Detail Record

**Note:** File size including the Header is 500 bytes. The 26-byte Standard Transaction Header always precedes the Detail Record and is described in section 3.1 on page 3.

| Investors Voluntary Redemption and Sales |        |                      |                                  |   |
|--|--------|----------------------|----------------------------------|---|
| Position                                 | Length | Format               | Field Name                       | Field Description   |
| 27                                       | 15     | Character            | Transaction Identifier           | <i>ccyymmddxxxxxxxx</i><br>Trade date + entry sequence number.                  |
| 42                                       | 12     | Numeric              | CUSIP Number                     | Position 1; 2 US<br>Position 3; 11 9-character CUSIP<br>number<br>Position 12 0 |
| 54                                       | 40     | Character            | Security Name                    | Name of security.   |
| 94                                       | 6      | Numeric              | Status Code                      | Six-digit code to indicate the status of a transaction.                         |
| 100                                      | 34     | Character            | Status Description               | Description of the transaction's status.  |
| 134                                      | 14     | Numeric<br>9(9)V9(5) | Share Quantity                   | Face value of the security.   |
| 148                                      | 8      | Character            | Trade Date                       | <i>Ccyymmdd</i> Date on which the transaction was entered.                      |
| 156                                      | 8      | Character            | Settlement Date                  | <i>ccyymmdd</i> Date of final settlement.                                       |
| 164                                      | 1      | Character            | Settlement Date Change Indicator | Indicates the settlement date has been modified for update; Y or N.             |
| 165                                      | 8      | Character            | Participant Number               | Participant ID.   |
| 173                                      | 20     | Character            | Participant Name                 | Participant name.   |
| 193                                      | 8      | Character            | Sponsor Number                   | Sponsor's ID.   |
| 201                                      | 20     | Character            | Sponsors Name                    | Sponsor's name.   |
| 221                                      | 8      | Character            | TA Number                        | Transfer Agent's ID.  |
| 229                                      | 8      | Character            | TA's Participant Number          | TA's Participant ID.  |



| Investors Voluntary Redemption and Sales |        |                      |  |   |
|--|--------|----------------------|--|---|
| Position                                 | Length | Format               | Field Name                                 | Field Description   |
| 237                                      | 20     | Character            | TA's Participant Name                      | TA's Participant Name.  |
| 257                                      | 2      | Character            | Transaction Type                           | RC redeem in cash.<br>RI redeem in kind.<br>SC sale to sponsor.               |
| 259                                      | 1      | Character            | Transaction Type Change Indicator          | Indicates the transaction was modified for update; Y or N.                    |
| 260                                      | 1      | Character            | Buy Back/Redeem Decision                   | Indicates the Buy Back/Redeem decision was modified for update.               |
| 261                                      | 1      | Character            | Buy Back/Redeem Decision Change Indicator  | Indicates that the Buy Back/Redeem decision was modified for update; Y or N.  |
| 262                                      | 15     | Numeric<br>9(9)V9(6) | Bid Price per Unit                         |   |
| 277                                      | 1      | Character            | Bid Price Indicator                        | Indicates the Bid Price was modified for update; Y or N.                      |
| 278                                      | 15     | Numeric<br>9(9)V9(6) | Accrued Interest per Unit                  |   |
| 293                                      | 1      | Character            | Accrued Interest per Unit Change Indicator | Indicates that the Accrued Interest per Unit was modified for update; Y or N. |
| 294                                      | 13     | Numeric<br>9(11)V99  | Settlement Amount                          |   |
| 307                                      | 1      | Character            | Bypass Settlement                          | Flag to indicate the settlement has to be passed or not; Y or N.              |
| 308                                      | 8      | Character            | Last Maintenance Date                      | <i>ccyyymmdd.</i>   |
| 316                                      | 78     | Character            | Transaction comments                       | Transaction comments.   |
| 394                                      | 10     | Character            | Filler                                     | DTC use only; do not use.   |





| Investors Voluntary Redemption and Sales |        |           |             |  |
|--|--------|-----------|-------------|--|
| Position                                 | Length | Format    | Field Name  | Field Description  |
| 404                                      | 1      | Character | Record Type | Indicates type of record:<br>T = Transfer Agent.<br>S = Sponsor. |
| 405                                      | 96     | Character | Filler      | DTC use only; do not use.  |

### 3.3 CCF Trailer Record

The following record layout is for the CCF Trailer Record, which must be the last record of every CCF input transmission to DTC:

| CCF Trailer Record |        |           |                           |  |
|--------------------|--------|-----------|---------------------------|--|
| Position           | Length | Format    | Field Name                | Field Contents   |
| 1                  | 1      | Character | Feedback Indicator        | Blank on input.<br>? on output, if any errors were encountered during processing.  |
| 2                  | 1      | Character | Production/Test Indicator | This is a required field.<br>P = Production.<br>T = Test.  |
| 3                  | 6      | Character | Record Type               | TRAILR   |
| 9                  | 2      | Numeric   | Record Suffix             | Must be 01   |
| 11                 | 2      | Numeric   | Version Number            | Must be 01   |
| 13                 | 8      | Character | User Reference Number     | This field is optional - to be used by User.   |
| 19                 | 8      | Character | Addressee                 |  |
| 27                 | 7      | Numeric   | Total Record Count        | The total number of data records in this transmission; excludes the Trailer Record and must equal the DTC-calculated total record count. |



| CCF Trailer Record |        |           |                       |  |
|--------------------|--------|-----------|-----------------------|--|
| Position           | Length | Format    | Field Name            | Field Contents   |
| 34                 | 13     | Numeric   | Total Quantity Amount | The total quantity amount in all the data records in this transmission; must equal the DTC-calculated total quantity amount or zero if not applicable. |
| 47                 | 15     | Numeric   | Total Dollar Amount   | The total dollar amount in all the data records in this transmission; must equal the DTC-calculated total dollar amount, or zero if not applicable.    |
| 62                 | ?      | Character | Filler                | Spaces; "?" is the ending position of the data record being transmitted.   |

### 3.4 CCF Summary Record

The following is the record layout for the CCF Summary Record which is returned to all CCF Users in the transmission response file.

| CCF Summary Record |        |           |                           |   |
|--------------------|--------|-----------|---------------------------|---|
| Position           | Length | Format    | Field Name                | Field Contents  |
| 1                  | 1      | Character | Feedback Indicator        | "?" indicating an error has occurred.   |
| 2                  | 1      | Character | Production/Test Indicator | P = Production.<br>T = Test.  |
| 3                  | 6      | Character | Record Type               | CCFSUM  |
| 9                  | 2      | Numeric   | Record Suffix             | 01  |
| 11                 | 2      | Numeric   | Version Number            | 01  |
| 13                 | 16     | Character | Filler                    | For DTC use only.   |
| 27                 | 7      | Numeric   | Total Valid Records       | Total number of valid (error free) records received by DTC, including the (valid) Trailer Record. |



| CCF Summary Record |        |           |                             |  |
|--------------------|--------|-----------|-----------------------------|--|
| Position           | Length | Format    | Field Name                  | Field Contents   |
| 34                 | 7      | Numeric   | Total Invalid Records       | Total number of invalid (erroneous) records received by DTC, including the (invalid) Trailer Record. |
| 41                 | 13     | Numeric   | Total Valid Quantity        | Total quantity for all valid transactions received.  |
| 54                 | 13     | Numeric   | Total Invalid Quantity      | Total quantity for all invalid transactions received.  |
| 67                 | 15     | Numeric   | Total Valid Dollar Amount   | Total dollar amount for all valid transactions received.   |
| 82                 | 15     | Numeric   | Total Invalid Dollar Amount | Total dollar amount for all invalid transactions received.   |
| 97                 | 4      | Numeric   | Transmission Number         | The User-assigned number identifying the transmission.   |
| 101                | 4      | Character | Function Name               | Function name.   |



## 4 Message Types

There are two possible sources of messages:

- The CCF Response File is returned to the User immediately upon completion of the transmission. This is also known as a "Front End Error."
- An application reject is also known as a "Back End Reject."

### 4.1 CCF Response File

After the end of a transmission, DTC returns a Response File containing two types of computer-readable records to the Participant. Users are responsible for appropriate processing of these computer-readable records, using them to determine which transactions have been accepted or rejected, along with other information regarding the status of the transmission.

The two record types that appear within the Response File are described below:

- Summary Total Record (called "CCFSUM" in the record type field of the transaction record): contains summary information regarding the entire transmission, including totals for accepted and rejected transactions. The Summary Total Record will always be the first record in the Response File.
- Application Data Records: returned to the User in response to any edit errors detected within the transmission. Error records, if any, will follow the Summary Total Record in the Response File. This type of edit reject is also known as a "Front End Reject."

### 4.2 Back End Rejects

These messages will be created when an input transaction, which has been accepted by the front-end editing module, is rejected later by the application processing program. Back-end Rejects will be queued back to the message queue associated with the password that was used to transmit the input transaction initially. The length and format of an output message are different for each application; however, all messages will have a ? in the first byte to distinguish a "Back End Reject."



## 5 Error Codes

### 5.1 List of Error Codes for ICM Input Function

| Error Code | Description                                       |
|------------|---|
| 101        | DTC APPLICATION ERROR: CONTACT DTC                |
| 103        | INVALID SIGNON ID                                 |
| 104        | USER ALREADY LOGGED ON                            |
| 105        | INVALID PASSWORD                                  |
| 107        | INVALID FUNCTION - NOT CCF FUNCTION               |
| 108        | USER NOT ELIGIBLE FOR CCF FUNCTION                |
| 109        | FUNCTION NOT AVAILABLE, PAST CUTOFF TIME          |
| 110        | CCF FUNCTION TEMPORARY UNAVAILABLE - QUIESCED     |
| 111        | DUPLICATE TRANID                                  |
| 112        | INVALID RECORD LENGTH USED FOR FUNCTION REQUESTED |
| 113        | FUNCTION UNAVAILABLE - FILES MAY BE UNAVAILABLE   |
| 121        | FUNCTION UNAVAILABLE - CCFUSER MAY BE UNAVAILABLE |
| 123        | SYNTAX ERROR IN THE REQUEST                       |
| 124        | LOGICAL ERROR IN THE REQUEST                      |
| 224        | PARTID DOES NOT MATCH SIGNON IN THE PASSWORD R    |
| 720        | INPUT FILE INCOMPATIBLE FOR RJE INPUT             |
| 820        | INPUT FILE EMPTY                                  |
| 900        | DTC INTERNAL ERROR - CONTACT DTC                  |
| 902        | ERROR WITH CALL TO CCFUSER - CONTACT DTC          |
| 903        | CCFII REBLOCK PROBLEM FOR RJE USERS               |
| 904        | OUTPUT FILE INCOMPATIBLE FOR RJE USERS            |



## 5.2 Error Conditions

If any errors occur during processing, the following occurs:

- CCF Users receive their input record with 40 bytes of errors appended to the end of the record.
- MDH Users receive a 40-byte area for errors in their '06' return block.

The following describes the errors that can be received during the edit of an IVR1 and IVR5 transaction. This error list describes both the Field Identifier and the Error Code. These codes are defined in the DTF files.



### 5.3 ICMFLD for Field Identifiers/ICMERR for Error Codes

**Note:** Refer to the Interface Control Management document for specifics relating to the way errors are returned to your system. The following table lists the application errors which were detected by DTC.

| ICMFLD for Field Identifiers/ICMERR for Error Codes |                  |
|---|------------------|
| Field Identifier                                    | Error Identifier |
| CAGN  | 9AAA             |
| GAAA  | 9AAA             |
| GADG  | 9AAA             |
| EAG3  | 9AAA             |
| DAAA  | 12E2             |
| DABL  | 9AAA             |
| EAG5  | 9AAF             |
| DAAT  | 9AAF             |
| DAAT  | 12E2             |
| BAAB  | 9AAA             |
| BAAA  | 9AAA             |
| BAAA  | 12E1             |
| CAAY  | 9AAA             |
| GAGX  | 9AAA             |
| CAHB  | 9AAA             |
| CAHC  | 9AAA             |
| BAAA  | 9ABR             |
| BACA  | 12E2             |
| EAB7  | 9AAA             |
| JCCC  | 9AAA             |

| <b>ICMFLD for Field Identifiers/ICMERR for Error Codes</b> |                         |
|--|-------------------------|
| <b>Field Identifier</b>                                    | <b>Error Identifier</b> |
| HAEO   | 9AAA                    |
| HAEP   | 9AAA                    |
| HAEM   | 9AAM                    |
| IVCD   | 9AAA                    |
| EAG7   | 9AAA                    |
| IVCC   | 9ACP                    |
| GAAA   | 9ACP                    |
| EAG4   | 9AAA                    |
| EAG6   | 9AAA                    |
| GAAA   | 9AAM                    |
| GAAA   | I2E4                    |
| JAAL   | 9AAA                    |
| GABN   | 9ABG                    |
| 7EAG   | 9ABG                    |
| BAAA   | 9ABG                    |
| DABL   | 9ABG                    |
| EAG3   | 9ABG                    |
| EAG3   | IABQ                    |
| EAG4   | IAQT                    |
| EAG5   | IABQ                    |





## 6 Appendices

### 6.1 CCF Tape Backup Procedure

If for any reason a User is unable to submit a transmission via CCF, the following steps should be taken:

- 1) Contact DTC's Network Operation Department at (212) 240-1569. Notify them that you are unable to transmit your data and that you will be sending an ICM backup tape containing your data.
- 2) The User should prepare a magnetic tape containing his transactions. This magnetic tape must be in the format specified in this function User's Guide. CCF Users must add a CCF-II password to the input data set for processing.
- 3) Each tape must arrive at DTC with the CCF Backup Procedure Form (see next page) attached with all information supplied.
- 4) The User should send this tape to DTC's Production Control Department at 55 Water Street, on the second sub-level (2SL). DTC will submit the transaction from the magnetic tape and return the tape containing the transactions to the User.

Participants that, in an emergency, will not be able to deliver a magnetic tape to DTC before the appropriate cutoff time, are responsible for making other arrangements for backup in case of modem or telephone equipment failures.

Participants should realize that when using CCF-II to submit transactions to DTC, they are bound by computer and data communications equipment availability at their site. DTC cannot afford to delay its entire processing cycle in order to accommodate equipment failures at any participant site. It is strongly suggested that all Users maintain redundant CCF-II equipment (computers, communication controllers, modems, telephone lines, etc.).

**IN NO EVENT will DTC accept ANY responsibility for a Participant's inability to submit transactions.**



## 6.2 Backup Procedure Form

CCF Backup Procedure job = CCFICMB1

Date: \_\_\_\_\_

Participant/Sign-on Number \_\_\_\_\_

Participant/User Name \_\_\_\_\_

Participant Contact \_\_\_\_\_

Phone Number: (     ) \_\_\_\_\_

-----  
-

### Scheduler Overrides

DFUNC \_\_\_\_\_ (Transaction name eg. TRAC or AFFC)

PARTID \_\_\_\_\_ (Participant Number)

LRECL \_\_\_\_\_ (Input Record Length)

LRCL \_\_\_\_\_ (Output Record Length)

TRANID \_\_\_\_\_ (Transmission Number)

### Example:

CCFICMB1,DFUNC=TRAC,PARTID=9999,LRECL=807,LRCL=847,TRANID=0001



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