CCF/CCF-II/MDH Transmission Guides

4.04 SECSEG:
Function User's Guide

The Depository Trust Company   **April 1997**

4.04   SECSEG: Function User's Guide

Table of Contents

1.0   Overview

The Segregation system will allow Participants to segregate securities from the Participant's General account and to release segregated securities. The segregated securities appear with a unique serial number (1 thru 5 or 100) on the Participant's Daily Activity Statement. Until the segregated securities are released to the Participant's General; account they are unavailable for the following functions:

- Transfer

- Deliver Orders

- Withdrawals

- Pledges

The Security Segregation function will provide immediate validity editing of the transmission. The Participant will receive a return transmission concerning any errors found during the editing process.

Account updating will occur dynamically, after the edit job has ended.

The dropped transactions will be provided via DTF through DTF/SEGPART. There will be a separate User's Guide for this function.

The Security Segregation Function will be available from 4:00 A.M. until 6:30 P.M. It will still be possible to process segregation and release transactions through the PTS SEG and RSEG functions, if any instruction were not transmitted via CCF-II.

2.0 CCF-II Summary

DTC's Computer-to-Computer Facility Two (CCF-II) is a medium enabling the transmission of data back and forth between the Depository Trust Company and its participants/users. The user transmits data to DTC (the Transmission file), and then receives data in reply from DTC (the Acknowledgment file).

CCF-II transmissions to and from DTC utilize either:

- IBM's Remote Job Entry (RJE) software

- IBM's Remote Job Entry /System Network Architecture (RJESNA) software

- Systems Center Network Data Mover (NDM) software

In order for a CCF-II user to transmit data to DTC, he must prepare an input file of transactions in the DTC-specified format. The user then executes RJE-, or NDM-based JCL in order to communicate with DTC's computer system.

After the transmission completes, DTC will edit the input Transmission file and return an Acknowledgment file to the user, indicating the status of the transmission and any errors that were detected in the transmitted transactions.

This document discusses all aspects of transmission via DTC's Computer-to-Computer facility two (CCF-II).

2.1 Transmitting Transactions to DTC

When a CCF-II user wishes to transmit data to DTC, he must prepare JCL as specified in either the RJE and RJE/SNA Environment via CCF-II Function Users Guide, or CCF-II/NDM USER'S GUIDE. A brief description of the "EXEC" statement for such JCL appears on the next page.

For a more complete understanding of specific JCL requirements the RJE and/or NDM User Guides must be consulted.

After creating a file of input transactions in the appropriate RJE or NDM format, the user transmits the DTC-Specified JCL in order to initiate a job within DTC's Computer System. The input file records are then edited and any records in error

2.1 Transmitting Transactions to DTC *(Continued)*

will be transmitted back to the user. Valid transactions will be processed if no "severe" errors are detected.

The user must submit the following generic procedure name and overriding parameter in the transmitted JCL to indicate the CCF-II function being proceeded:

Procedure name: "RJExxxxx", "NDMxxxxx"
override parameter: "FUNC=yyyyyy"

where:

RJExxxxx   = DTC's CCF-II/RJE processing procedure; "xxxxx" is the suffix referring to the transmitted function.

NDMxxxxx   = DTC's CCF-II/NDM processing procedure; "xxxxx" is the suffix referring to the transmitted function.

yyyyyy   = the name of the CF2 function being transmitted.

2.2 Initiating a SECSEG Transmission

The user then executes RJE-, or NDM-based JCL to DTC to initiate SECSEG transmission. The basic format of the JCL "EXEC" statement appears in the appropriate CCF-II User's Guide. Contact Participant Interface Planning to obtain copies.

2.3   Testing the SECSEG Function

By placing a "T" or a "P" in the processing option field (position 28) of the transmission header record, the user may specify whether the transmission is for "TEST" or "Production" purpose.

Production   All security Segregation transactions in a :"production"(live) SECSEG transmission that comply with SECSEG edit criteria and are deemed fully valid affect the "SECSEG" position within a Participant's free account.

Test   No security Segregation transactions in a SECSEG "test" transmission affect the Participant's free account. These transactions are listed (at DTC) and, if invalid, are returned to the Issuing Participant. "Test" listing are available from DTC upon request. DTC has created the "test" option to facilitate development of CCF-II functions on the 'Participants' computer systems.

3.0   Recovery Procedures

Restart capability is available for SECSEG users. Details of the procedures to be followed in the event that RESTART is necessary are provided in the CCF-II System Users' Guide in the section entitled "RECOVERY/RESTART PROCEDURES".

3.1   Backup for CCF-II

If for any reason a user is unable to use CCF-II to enter his SECSEG transactions as scheduled, DTC Network Operations should be notified immediately at (212)240-1569.

If the user is unable to enter his SECSEG transactions via CCF-II because of modem or telephone line equipment failures at his site, the user, if eligible, may enter his segregation and releases through the PTS SEG or RSEG Function.

Also available, as a backup, is magnetic tape input. The magnetic tape must have the following characteristics:

•   Non-labeled

•   6250 bpi

•   RECFM=FB

•   LRECL=80

•   BLKSIZE=Efficient Block Size

The user should send this tape to DTC via messenger. DTC will input the transactions from the tape and return it to the user.

Participants should realize that when using CCF-II to input 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 recommended that all SECSEG users maintain backup CCF-II equipment (computers, communication controllers, modems, telephone lines, etc.).

DTC will, in no event, accept any liability for a Participant's inability to enter security segregation and security release transactions.

4.0   File Preparation

In order to use the SECSEG function to transmit Security Segregation and Release Transactions, the user must prepare one input file.

File Characteristics:

- Instream data
- Record Length =   80 bytes
- 1st record   => PSW record (Signon/Password record)
- 2nd record   => HDR record (Header record)
- Detail records
                      .
                      .
                      .
- Last record   => TLR record (Trailer record)

5.0   SECSEG Transaction Record Formats

There are three types of Security Segregation and Release Transaction records:

•   Header Record

•   Detail Records

•   Trailer Record

A basic description of these records, and their formats, is as follows:

Header Record   Contains information pertaining to the entire transmission, such as user sign-on ID, processing date and function to be performed.

Detail Record   Contains the Segregation or Release transaction to be performed for a participant.

Trailer Record   Contains transmission information as on Header, and control totals of the number of detail records in the transmission, and the total number of securities segregated and released.

Group users may submit detail records for more than one participant in a single transmission.

The Structure of a transmission is as follows:

> Password Record
> Header Record
> Detail Record(s)
> .
> .
> .
> Trailer Record

6.0   SECSEG Transmission Formats

6.1   Signon/Password Record Format

The password Record contains information regarding the eligibility of a Participant to use DTC's services.

The format of the Password Record is as follows:

Password Record Format

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Must contain "PSW".
4	6	Character	SIGNON ID	SIGNON ID of transmitting Participant or Group User; left-justified.
10	6	Character	Password	DTC assigned password; right-justified.
16	6	Character	Activity Type	Must contain "SECSEG".
22	3	Numeric	Transmission ID	Non-zero value, 3 digit numeric field, right-justified and left zero-filled. Same ID as "HDR" and "TLR".
25	56	Character	Filler	DTC use only. Do not use.

6.2   CCF-II Header Record Format

The format of the CCF-II/SECSEG Header Records noted below.

Format of CCF-II/SECSEG Header Record

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier.	Must contain "HDR".
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID	SIGNON ID of transmitting Participant or Group User); left-justified.
12	6	Numeric	Transmission Date	Format MMDDYY.
18	6	Character	Activity Type	Must contain "SECSEG".
24	3	Numeric	Transmission ID	Non-zero value, 3 digit numeric field, right-justified and left zero-filled. Same as "PSWD" and "TLR".
27	1	Character	Filler	DTC use only. Do not use.
28	1	Character	Processing Option	"P" = Production "T" = Test
29	52	Character	Filler	DTC use only. Do not use.

6.3 SECSEG Data Record Format

The format of the Detail Record is noted below.

Detail Record

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Type	"SEG" = Segregation Record "REL" = Release Record
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	Participant Number	
12	1	Character	Account Code	"G" = General account
13	9	Character	CUSIP Number	Must be a valid DTC-eligible CUSIP. Chilled CUSIP numbers are not accepted for record type "SEG".
22	13	Numeric	Security Quantity	Total Number of securities to be Segregated/Released.
35	1	Character	Odd Lot Dept Conversion Indicator	This field is used to indicate the Security quantity for bonds Stocks. " " Security Quantity 1=1 for Stocks. "D" Security Quantity 1=1 for bonds
36	4	Character	Filler	DTC use only. Do not use.
40	7	Numeric	Serial Number	Serial numbers 0000001 thru 0000005 and 0000100 are valid. For a release, this number must be the same as the serial number segregated.
47	34	Character	Filler	DTC use only. Do not use.

6.4 Trailer Record Format

The Trailer Record contains control totals of the number of detail records and number of securities in the transmission.

The format of the Trailer Record is noted below.

Trailer Record Format

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Must contain "TLR".
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID	SIGNON ID of transmitting Participant or Group User.
12	6	Character	Activity Type	Must contain "SECSEG".
18	3	Numeric	Transmission ID	Non-zero value, 3 digit numeric field, right-justified and left zero-filled. Same ID as "PSWD" and "HDR".
21	2	Character	Filler	DTC use only. Do not use.
23	5	Numeric	Total Detail Record Count	Right-justified and zero-filled. Total number of Detail Records in the transmission.
28	2	Character	Filler	DTC use only. Do not use.
30	13	Numeric	Totals Securities	Right-justified and zero filled. Total number of securities to be segregated.
43	38	Character	Filler	DTC use only. Do not use.

7.0 SECSEG Response Formats

After SECSEG transmissions are accepted by DTC, an acknowledgment file containing control totals of transactions to be processed and all transactions which were rejected is transmitted to the user. An error record is sent if the function or password is invalid or ineligible. Otherwise, a control record and an audit record are sent when all the data is accepted.

If error in the transactions are found, one of the following actions may be taken depending on the severity of the error:

1. Error: Invalid field or fields in detail record.
   Action: Record is rejected.

2. Error: Header or Trailer Record is missing or invalid.
              Trailer Record control totals do not match totals of records processed.
   Action: Entire transmission is rejected. All records transmitted are edit and returned along with control and audit records.

If the entire transmission is rejected, the records transmitted to the user will be the following:

>   Control Record
>   All Records Submitted (EXCEPT "PSW" Record.)
>   .
>   .
>   Audit Record

Note: *The "PSW: record is not returned to the Participant for security purposes.*

If the transmission is accepted, the records transmitted to the user will be the following:

>   Control Record
>   Rejected records (if any)
>   .
>   .
>   Audit Record

7.0 SECSEG Response Formats *(Continued)*

The Control Record will contain a transmission status number, indicating the status of the transmission. See "CONTROL RECORD TRANSMISSION STATUS CODE" on page 22 for the codes and their meanings.

The Audit Record will contain the total detail record count accepted and number of securities which DTC accepted for processing.

All transactions submitted will be checked for validity. Rejected records on the Error/Control File transmitted to the user will have a series of indicators placed in the records. Each indicator corresponds to a field in the record. A zero in the indicator means the fields is valid. A number in the indicator represents particular error which was detected, as described in the response record formats. If the record identifier is incorrect, the record will be edited as if it were a detail record and returned to the user.

7.1   Error Record Format

There are certain instances where a transmission will not execute DTC'S editing process. In these cases, an **ERROR** ("ERR") record will be transmitted to the Participants. No other records will be sent to the user.

The format of the Error Record is as follows:

Error Record Format (Part 1 of 2)

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Contains "ERR".
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID	SIGNON ID. From JCL PARM.
12	8	Character	Filler	DTC use only. Do not use.
20	6	Numeric	Processing Date	Contains current date (MMDDYY).
26	6	Character	Activity Type	Activity Type From JCL PARM.
32	3	Numeric	Transmission ID	From JCL PARM.
35	1	Character	Filler	DTC use only. Do not use.
36	1	Character	Filler	DTC use only. Do not use.
37	3	Numeric	Error-Level Code	Contains a number code representing an severe error found during processing. See "ERROR RECORD ERROR-LEVEL CODES," on page 28 for the codes and their meanings.
40	5	Numeric	Returned Record Count	Contains zeroes.
45	6	Numeric	Transmission Arrival time	(HHMMSS).

7.0   SECSEG Response Formats *(Continued)*

Error Record Format (Part 2 of 2)

Position	Length	Format	Field Name	Field Description
51	6	Numeric	DTC Edit Completion time	(HHMMSS).
57	24	Character	Error Description	Error Description.

7.1   Control Record Format

This record is always sent to the user.

The format of the Control Record is noted below.

Control Record Format (Part 1 of 2)

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Record Identifier. Contains "CTL"
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID	SIGNON ID. From JCL PARM.
12	8	Character	Filler	DTC use only. Do not use.
20	6	Numeric	Processing Date	Contains current date (MMDDYY).
26	6	Character	Activity Tape	Contains "SECSEG".
32	3	Numeric	Transmission ID	Transmission ID. This is from JCL PARM.
35	1	Character	Filler	DTC use only. Do not use.
36	1	Character	Processing Option	This is from input Header Record. If no Header was submitted, field is blank.
37	3	Numeric	Transmission Status	Contains a number code representing transmission status found during processing. See "CONTROL RECORD TRANSMISSION STATUS CODES" on page 26 for the codes and their meanings.
40	5	Numeric	Returned Records	Contains number of records transmitted to the user.
45	6	Numeric	Transmission Arrival Time	HHMMSS.

7.1   Control Record Format *(Continued)*

Control Record Format (Part 2 of 2)

Position	Length	Format	Field Name	Field Description
51	6	Numeric	DTC Edit Completion Time	HHMMSS.
57	24	Character	Filler	DTC use only. Do not use.

7.3 Header Response Record Format

This record will be sent to the user only if the entire transmission has been rejected, and will indicate any errors found in the record.

The format of the Header Response Record is noted below.

Header Response Record Format (Part 1 of 2)

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Contains "HDR".
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID.	This is from the Input Header.
12	6	Numeric	Transmission Date	This is from the Input Header.
18	6	Character	Activity type.	Activity type is from Input Header.
24	3	Numeric	Transmission ID	Transmission ID is from Input Header.
27	1	Character	Filler	DTC use only. Do not use.
28	1	Character	Processing Option	Processing Option is from input Header.
29	6	Numeric	Error Indicators	Each indicator will contain a zero if the field it represents is valid, or one of the following codes if invalid:
29	1	Numeric	Record ID	Record Identifies (contains zero).
30	1	Numeric	Sign-on ID	0 - Valid 1 - Does not match JCL PARM 2 - Does not match password record
31	1	Numeric	Processing Date	0 - Valid 1 - non-numeric 2 - Does not match date of transmission

4.04.08.03   Header Response Record Format *(Continued)*

Header Response Record Format (Part 2 of 2)

Position	Length	Format	Field Name	Field Description
32	1	Numeric	Activity Type	0 - Valid 1 - Not "SECSEG"
33	1	Numeric	Transmission ID	Transmission ID: 0 - Valid 1 - Not numeric 2 - Not 1 thru 999 3 - Duplicate TRANS ID number 4 - Does Not match JCL Parameter
34	1	Numeric	Processing Option	0 = Valid 1 = Not `P" or `T"
35	46	Character	Filler	DTC use only. Do not use.

7.4   Detail Response Record Format

This record will be sent to the user if a Detail Record is rejected, and will indicate any errors found in the transaction.

The format of the Detail Response Record is noted below.

Detail Response Record Format (Part 1 of 2)

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	This is the Record Identifier from transaction.
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	Participant Number	This is the Participant Number from Transaction.
12	1	Numeric	Account Code	This is the Account Code from Transaction.
13	9	Character	CUSIP Number	This is the CUSIP Number from transaction.
22	13	Numeric	Security Quantity	This is the Security Quantity from transaction.
35	5	Character	Filler	DTC use only. Do not use.
40	7	Character	Serial Number	This is the Serial Number from the transaction.
47	6	Numeric	Error Indicators	Each indicator will contain a zero if the field it represents is valid, or one of the following codes if invalid.
47	1	Numeric	Record Identifier	0 - Valid 1 - Not SEG or REL

7.4 Detail Response Record Format *(Continued)*

Detail Response Record Format (Part 2 of 2)

Position	Length	Format	Field Name	Field Description
48	1	Numeric	Participant Number	0 - Valid 1 - Group Participant not valid for sign-on ID entered 2 - Participant Number dose not match Sign-on ID entered 3 - Unable to validate Participant for Group User(function temporarily unavailable) 4 - Participant ineligible or locked
49	1	Numeric	Account Code	0 - Valid 1 - Not "G"
50	1	Numeric	CUSIP Number	0 - Valid 1 - Invalid 2 - Ineligible 3 - Chilled 4 - Bond & Format indicator not = "D"
51	1	Numeric	Security Quantity	0 - Valid 1 - Not numeric 2 - Invalid (amount zero)
52	1	Numeric	Serial Number	0 - Valid 1 - Not numeric 2 - Not valid
53	28	Character	Filler	DTC use only. Do not use.

7.5 Trailer Response Record Format

This record will be transmitted to the user only if the entire transmission has been rejected, and will indicate any errors found in the record.

The format of the Trailer Response is noted below.

Trailer Record Response Record Format (Part 1 of 2)

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Contains 'TLR".
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID	SIGNON ID from Input Trailer.
12	6	Character	Activity Type	From Input Trailer.
18	3	Numeric	Transmission ID	From Input Trailer.
21	2	Character	Filler	DTC use only. Do not use.
23	5	Numeric	Total Detail Count	From Input Trailer.
28	2	Character	Filler	DTC use only. Do not use.
30	13	Numeric	Total Securities	From Input Trailer.
43	5	Character	Filler	DTC use only. Do not use.
48	6	Numeric	Error Indicators	Each indicator will contain a zero if the field it represents is valid; or one of the codes noted in positions 48 - 53 if the field is invalid.
48	1	Numeric	Record Identifier	Contains zero.

7.5 Trailer Response Record Format *(Continued)*

Trailer Record Response Record Format (Part 2 of 2)

Position	Length	Format	Field Name	Field Description
49	1	Numeric	Sign-on ID	0 - Valid. 1 - Does not match JCL parameter.
50	1	Numeric	Activity Type	0 - Valid. 1 - Not "SECSEG".
51	1	Numeric	Transmission ID.	0 - Valid. 1 - Not numeric. 2 - Does not match JCL parameter.
52	1	Numeric	Total Detail Count	0 - Valid. 1 - Not numeric. 2 - Does not match program accumulated count.
53	1	Numeric	Total Securities	0 - Valid. 1 - Not numeric 2 - Does not match program accumulated number of securities.
54	27	Character	Filler	DTC use only. Do not use.

7.6   Audit Record Format

This record is always sent to the user.

The format of the Audit Record is noted below.

Audit Record Format

Position	Length	Format	Field Name	Field Description
1	3	Character	Record Identifier	Contains "ADT".
4	4	Character	Filler	DTC use only. Do not use.
8	4	Character	SIGNON ID	From JCL PARM.
12	6	Character	Activity Type	Contains "SECSEG".
18	3	Numeric	Transmission ID	From JCL PARM.
21	2	Character	Filler	DTC use only. Do not use.
23	5	Numeric	Accepted Total Detail Count	Number of Detail Records accepted for processing.
28	2	Character	Filler	DTC use only. Do not use.
30	13	Numeric	Accepted Total Securities	Number of securities accepted for processing.
43	38	Character	Filler	DTC use only. Do not use.

8.0   Control Record Transmission Status Codes

The Control Record sent to the user will contain a transmission status
Code which represents the transmission status found during processing.

000	Transmission accepted.
010	Partial transmission accepted. (one or multiple detail errors)
100	No valid detail records.
333	Unable to validate Participant for Group User.
444	NO file transmitted/received.
555	After processing cutoff time.
600	Header and Trailer records both invalid.
666	Function temporarily not available.
700	Detail record count specified on Trailer record does not match program count.
777	Total number of securities specified on Trailer record does not match program count.
800	Trailer record missing.
888	Trailer record invalid
900	Header and trailer missing.
950	Both header and trailer missing.
999	Header record invalid.

8.0 Control Record Transmission Status Codes *(Continued)*

The action taken based on the error-level code is as follows:

1. Error code 010 will cause the invalid Detail records to be rejected.

2. Error codes 100 and higher will cause all transmitted records submitted to be rejected.

9.0   Error Record Error-Level Codes.

The Error ("ERR") Record sent to the user will contain an Error-Level Code which represents a severe error.

The codes are the following:

222   Invalid password

300   Invalid function

350   Ineligible for function