

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

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NASA

National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

REDSTONE SCIENTIFIC INFORMATION CENTER (RSIC)

UTS400 TERMINAL USERS GUIDE

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SECTION 1 - GENERAL

1.0 INTRODUCTION

1.1 PURPOSE

This document is a working tool for interface with the Redstone Scientific Information Center (RSIC) System UTS400 terminals in the user area: how they operate, how to input transactions, and how system and program diagnostics are resolved. For RSIC System logic and capabilities, see RSIC System programming documentation.

2.0 OVERVIEW

The following paragraphs are general descriptions of hardware/software components of the RSIC System.

A. UNIVAC 1100/82 EXECUTIVE OPERATING SYSTEM

This collection of programs controls execution of all user programs, allocation of facilities (disks, tape drives, printers, etc.) to each of the programs, and allocation of data into and out of each of the user programs.

B. RSIC ONLINE APPLICATIONS PROGRAMS AND DATA BASE

The RSIC System consists of a great number of application subprograms for cataloging, ordering and receiving, etc., and a collection of data pertaining to the books and patrons currently on file at RSIC. This data resides on a FASTRAND Drum File, where it is accessible to the RSIC applications programs (online and batch) which can read, add, or modify the data base. When a transaction is entered at the terminal, it is passed from the UTS400 to the RSIC application subprograms, which determine the action to be taken, access the data file for the needed data, and output any resulting messages back to the UTS400.

C. OTHER USER PROGRAMS AND DEMAND TERMINAL PROCESSING

While the RSIC application subprograms are executing in the UNIVAC 1100/82 there can be many other types of programs also active in main memory under control of the Executive Operating System, and this can cause slower response times.

3.0 RSIC UTS400 OPERATING INSTRUCTIONS

Before operating the UTS400, the user should be familiar with the UTS400 Operator Guide (UP-8358).

A. TURNING ON THE TERMINAL CLUSTER

1. Expose the switch panel below the screen by moving the keyboard away from the UTS400 cabinet.
2. Press the ON side of the power switch.
3. Repeat Item 2 for all six terminals, the multiplexer, printer, disk drives, and the controller.
4. When the controller power is turned on, a power-on-confidence-test is performed automatically. The result of this test is displayed in the upper left corner of the screen. The basic display consists of two groups of characters with the left group consisting of eight characters and the next group, separated by one space from the first, consisting of seven characters. A display of /***** indicates the UTS400 System passed the confidence test. If any other characters are displayed, such as 0-9 or A-F, please refer to Appendix A of the UTS400 Operator Guide (UP-8358) for further instructions.

B. LOAD PROGRAM PROCEDURE

1. Press cursor to Home key.
2. Hold down the Upper Function key and press the Erase Display key on the master station. This will erase the screen.
3. Press the Control Page key. This will cause the control page to be displayed on the top of the screen.
4. Using the Tab Forward key, move the cursor to the end of the first line. Now press normal keys P and 6 to partition memory.
5. Using the Tab Forward key, move the cursor along the control to the first space in the second line. Now press the normal keys D and 1.
6. Press Tab Forward key once. This will cause the cursor to be moved to the third space in the second line. Now press the normal keys H and 0 respectively.
7. Completion of Item 5 and 6 will cause the peripheral function of homing disk drive 1 to be performed when the Print key is depressed.

8. Now the cursor should be resting under the first * in the (**XFER) field. If this is correct, press the normal keys D,1,D,1,R,D.
9. Press the Control Page key. This will cause the control page to be returned to memory.
10. Insert the program disk into disk drive 1. This is the top left hand disk drive when you are facing the disk. The disk must be inserted with the lettering down and the open slot forward. Push slowly until the disk stops. Close the door on the disk drive.
11. Press the Print key twice. This will home disk 1.
12. Press the Load Program key. UTSD will be displayed on screen.
13. Press the Load Program key again. This starts the program to loading. If the red light on disk 1 goes out before the program is completely loaded (see Item 15) press the load program key again.
14. If the program is loading properly, disk 1 will have a red light on just above the disk door.
15. When the program is loaded, the following messages will be displayed on the upper portion of the screen.

UTS400 READY
 F5 - To log to diskette
 F14 - To process online
 F18 - To prep disks
 F19 - To reprocess
 F20 - To initialize version record

16. Remove program disk
17. Insert blank prepped disks in disk drives using the procedure described in Item 10.
18. Depress Function key for desired action.



Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
PER LETTER	
By _____	
Distribution/	
Availability Codes	
Dist	Avail. and/or Special
A-1	

C. ASSIGNMENT OF FUNCTION KEYS (FKEYS)

Attention keys, called FKEYS, have been assigned to input transactions, display answers, display status, erase screen, and display a recap page. The FKEYS are:

- F5 - To log onto diskette
- F6 - To display transaction RECAP
- F7 - To input transactions at Station 1.
- F8 - To input transactions at Station 2.
- F9 - To input transactions at Station 3.
- F10 - To input transactions at Station 4.
- F11 - To input transactions at Station 5.
- F12 - To input transactions at Station 6.
- F13 - To retrieve answers from diskette and status.
- F14 - To begin processing each day and to resume processing if POC test is performed.
- F15 - To execute endday procedure.
- F16 - To resume processing after partial boot or DCP/40 problems (only if POC test is not performed).
- F17 - To terminate processing (FINS off & TERMS line).
- F18 - To write track and sector addresses on disk (UPREP).
- F19 - To reprocess or to process disk with transactions logged previously.
- F20 - To initialize version record (before start day procedure). To clear screen (after start day procedure).
- F21 - Debug monitor (user should never press this key).
- F22 - Automatic print on/off switch.

D. INPUT TRANSACTION PROCEDURE

1. Press the FKEY for your station. This will initiate the transaction input procedure for your station and display. Enter your transaction in the top left corner of your screen.
2. Enter any valid transaction, 20 lines maximum.
3. After transaction has been entered on the screen, you may proofread it. Using the scan keys, correct any erroneous data and reposition the cursor one position to the right of the last character in the transaction line.

E. TRANSACTION ANSWER PROCEDURE

1. Press the F13 key once to initiate the transaction answer procedure. This will cause a message to be displayed on the top line of the screen.

ENTER TX/ANSWER # PRESS RETURN DISK XXX HOST YYY

SID-Z ZZZ

The message at the top left tells you what to do. The message at the top right is a status of transactions written to disk XXX, answers received from the Host YYY, and answers displayed on your screen ZZZ.

2. If the status of Host YYY is greater than zero, you have answers written to disk 2 that may be displayed on your screen.
3. Enter the desired transaction answer number and press return. This will cause disk 2 to be read and displayed on your screen. Pressing return without first entering a transaction number will cause the last answer received to be displayed on the screen.
4. After the answer is displayed on your screen, this message will be displayed on the top left of your screen:

PRINT OR RETURN TO CONTINUE ANSWER

5. Press the F13 key to end the transaction answer procedure.

F. CLOSE DAY PROCEDURE

1. Press the F15 key. This will cause the version record to be updated, initiate a demand run to secure the RSIC Master File, and terminate all RSIC UNIVAC i100/82 programs.
2. When "End Day Procedure Complete" message appears on the screen the POC Test should be performed. This is accomplished by pushing the test switch to the ON Position on the controller.

G. TO SYSTEM PREP A DISK (Each new disk must be system prepped)

1. Perform Power on Confidence test.
2. Press the Control Page key.
3. Using the Tab Forward key move the cursor along the control to the first space in the second line. Now press the normal keys D and 1.
4. Press Tab Forward key once. This will cause the cursor to be moved to the third space in the second line. Now press the normal keys H and O.
5. Now the cursor should be resting under the first * in the (**XFER) field. Press the normal keys D,1,D,1,P,R.
6. Insert the disk to be prepped into disk drive 1.
7. Press Print key twice.

8. Press Xfer key once. This begins System prep. The light on Disk Drive 1 will be on. When the light goes off the disk may be removed.
9. To system prep more disks use the procedure starting with Item 6.
10. After a disk is system prepped it must be program prepped. (See Section H).

H. **TO PROGRAM PREP A DISK (DISKETTES MUST HAVE BEEN SYSTEM PREPPED BEFORE PROGRAM PREPPING (See Section G.))**

1. Load UTS400 program. See Load Program Procedure (Section B) Items 1-16.
2. Insert disks in disk drives 1 and 2.
3. Press F18 key to begin program prep.
4. A red light will be on just above the disk door when the disks are being prepped. It will take approximately 10 minutes for each disk.
5. When the disks are complete, a message will appear at the top of the screen: "Disk Prep Complete". The disks may be removed.
6. Another set of disks may be prepped at this time by placing disks in disk drives 1 & 2 and pressing the F18-key. This may be continued for as many sets of disks as needed.
7. When Disk Preps are complete perform POC test.

I. TO PRINT A DISK FOR A SPECIFIC TERMINAL

1. Perform Power on Confidence test as described in Item 4 of Load Program Procedure.
2. Insert Disk into Disk Drive 1.
3. Press Control Page key.
4. Using tab forward key move cursor along the control to the first space in the second line. Now press the normal keys D and I.
5. Press Tab Forward key once. This will cause the cursor to be moved to the third space in the second line. Now press the normal keys H and O.
6. Now the cursor should be resting under the first * in the (**XFER) field. Press the normal keys D,I,D,I,R,D.
7. The cursor should now be resting in the first position of the search field. Press the normal keys @ and I respectively. Now you may key the address for the terminal which is to be printed.

The addresses are:

SID	Disk		Address
1	2	transaction output	0001-1726
2	3	"	0001-3526
3	4	"	3601-7220
4	2	"	1801-5326
5	4	"	0001-7220
6	2	"	5401-7220
All	1	transaction input	0003-7220

8. Press the Control Page key.
9. Press the Print key twice.
10. The cursor should now be in the uppermost left corner. Press the SOE (Start of entry) key.
11. Press the Backspace key to place the cursor over the SOE.
12. Press the Search key.
13. Press the Control Page key.

14. Using the Tab Forward key, move cursor to the first position under the (**XFER) field. Press the normal keys D,l,T,l,C,O.
15. The cursor should now be positioned over the @ after the search field. Press the EOL (Erase to end of line) key.
16. Press the Control Page key.
17. Press the XFER key. This should start the print. To stop the print, press the keyboard unlock key.

J. TO PRINT A DISK

1. Perform Power on Confidence Test as described in Item 4 of Load Program Procedure.
2. Insert Disk in Disk Drive 1.
3. Press Control Page Key.
4. Using the Tab Forward Key move the cursor along the control to the last space in second line. Now press the normal keys Dd and l.
5. Press Tab Forward key once. This will cause the cursor to be moved to the third space in the second line. Now press the normal keys H and O.
6. Now the cursor should be resting under the first * in the (**XFER) field. Press the normal keys D,l,T,l,C,O.
7. Press the Control Page key.
8. Press the Print key twice.
9. Press the Xfer key to start the print.
10. To stop the printing, press the Keyboard Unlock key.

4.0 CONCURRENT ONLINE PROCESSING OF THE TWO RSIC SYSTEMS

A common bank cell (SWITCH) is prepared during the collecting of the RSIC online program. This cell is accessed during program execution to determine if the RSIC data file is in use by another RSIC run. The switch is set by entering FTN using "MINE" in the "INI" subprogram. It cleared by enter FTN using "YOURS" in the "WRTVER" subprogram. If the switch is set by an RSIC job, the other RSIC job will not be allowed to continue until this switch is cleared.

Lockouts can occur from time to time when the DCP/40 or host goes down, or when RSIC personnel must have their line terminated. Therefore, the common bank switch may be cleared unconditionally by an @XQT DECPUR.CLEAR. The switch is not automatically cleared when there is an abnormal termination. The unconditional clear should be used with caution so as not to upset the exclusive use of the RSIC file concept. Use the following as guidelines:

1. If a lockout of both systems occurs, do the unconditional clear from one of the systems.
2. If only one system is up and processing on any given day and a lockout occurs, it is safe to do an unconditional clear.
3. If the host operator is requested to kill a line, check if the other system is up and processing. If not, do an unconditional clear.
4. If a "Host down" condition is known, one system should do an unconditional clear when the host comes back up.

When both systems are merely idling (not in the middle of processing a transaction) and an abnormal termination occurs, the switch is not set; there is no need to clear it. The switch is left set only when a system is processing a transaction and an abnormal termination occurs.

5.0 UTS400 SYSTEM CHANGES

5.1 UTS400 PROGRAM CHANGE

Use RSICXXBIN312 as qualifier on run card.

1. Load PUR file and MAC80 file

```
@ASG,A MAC80*MAC80.  
@ASG,A DECPUR1.
```

2. DECPUR1.R5001C is the name of the UTS400 Program.

Do @ED,U DECPUR1.R5001C to make changes. Set tabs at 10,20,40. Use a terminal that has lower case characters, because the program was originally produced using lower case characters.

5.2 UTS400 PROGRAM COMPILE

1. @ADD,LP DECPUR1.CMPLKP

2. The compiled listing is written to file DECl. Edit print file DECl to check for errors, by doing a locate on "PROGRAM ERRORS". Do @SYM DECl,,MHSP to obtain listing of program.

5.3 PREPARE UTS400 PROGRAM TO BE DOWN-LINE LOADED TO FLOPPY DISK

1. @ADD,LP DECPUR1.PREPER

5.4 DOWN-LINE LOADING UTS400 PROGRAM TO FLOPPY DISK

1. Insert a disk into DRIVE 1, DISK slot 1. It is recommended that the current program disk not be used because if errors occur during the down-line load, the current program will be overwritten, leaving no usable backup program disk.
2. Set the control page at the master terminal (terminal 1) by setting the print key to home disk 1 and the XFER key to read disk 1.
3. Home disk 1 by pressing the print key.
4. Do @ADD,LP DECPUR1.LODISK
5. Do not touch the keyboard while the program is down-line loading, because whatever is on the screen is written to the disk. Inadvertent keystrokes will destroy program integrity. The down-line load is complete when the message "DOWNLINE LOAD COMPLETE" appears at the bottom of the screen.

6. Save your files by doing the following:

```
@ASG,TF TAPE,U9S,SAVE04. UTS400 PROGS °DATE°  
@COPY,GM DECPUR1.,TAPE.  
@COPY,GM DECPUR2.TAPE.  
@COPY,GM MAC80*MAC80.,TAPE.
```

7. It is recommended that the program disk be write protected to keep the program disk from being written on by mistake.

NOTE: DECPUR1 and DEC1 used for System 1 (2nd floor).
DECPUR2 and DEC2 are used for System 2 (lobby).

SECTION 2 - RSIC APPLICATIONS PROGRAMS

The RSIC Applications Programs can be categorized into six major software subsystems: Patron control, book ordering and receiving, cataloging, circulation, language control, and serials. Each of these subsystems is designed to handle a specific RSIC function such as book cataloging, circulation, etc. They are described in the following pages.

By inputting transactions through the terminal the RSIC user accesses the appropriate module within a subsystem to accomplish the desired action. A transaction input from the terminal consists of a combination of the following components:

- Action Code - This identifies the functional module needed, such as Add Book or Display. It is a unique 2- or 3-digit code. The Action Code is always the first field entered for any transaction.
- Element/Field Code - The specific piece of data of interest is identified by the ELEMENT code. Each type field in the RSIC data file has associated with it a unique 3 character ELEMENT Code such as B02 for title.
- Field Separators - To separate fields within a transaction a / (slant bar) character is used. To separate entries within a given field a ,, (double comma) is used.
- Field Data - A \$ (dollar sign) is used to indicate that the indicated field is to be deleted.
- Message Codes - Two characters, the ' (quote) and the # (End of buffer), are used to signal the end of a message.
- LC Call Number - In all actions requiring LC call number to be input, the following format must be used:

There must be one or more spaces between main class/division and subdivision fields, subdivision and Cutter number fields, and Cutter number and date fields.

Examples:

TK	6642	M629	1963
Q	314	K17	1970V3

Error messages returned to the user on the UTS400 can be placed into one of two categories:

- User
 - The error is a result of erroneous user input in format, content, or logic; correctable by reinputting the corrected transaction.
- System
 - The error is within the RSIC programs or data file and the user cannot correct. This type of error should be coordinated with the RSIC System programmers.

2.1 CATALOGING SUBSYSTEM

The Cataloging Subsystem provides the necessary capabilities for maintaining a current inventory of RSIC books.

2.1.1 Edit Program

All cataloging transactions except Display (Action Code 36) are passed to the edit program for editing. The following element codes may be processed in the cataloging subsystem:

<u>ELEMENT CODE</u>	<u>FIELD NAME</u>	<u>MAXIMUM LENGTH (CHARACTERS)</u>	<u>EDIT CRITERIA</u>
B01	LC Number	37	The date is in the range 1599 to present year. A message is displayed if the date is not in this range; however, the transaction continues processing. LC number input to all cataloging programs must have at least one space after Main Class/Division, Subdivision, and Cutter Number.
B02	Title	999	Any valid alpha-numeric characters plus commas, periods, and dashes are allowed. There may be multiple entries separated by double commas. Successive blanks are eliminated to one blank. The last character of an entry should not be a comma.
B03	Author	999	Same as Title.
B04	Subject	999	Same as Title.
B05	Expendability/ Media Code	1	C = expendable copy. A = nonexpendable copy.
B06	Bibliographic Paragraph	999	Same as Title.
B07	Editor	999	Same as Title.
B08	Compiler	999	Same as Title.
B09	Language	999	Same as Title.
B10	Illustrator	999	Same as Title.

B11	Translator	999	Same as Title.
B12	Series	999	Same as Title.
B13	Informal Notes	999	Same as Title.
B14	Cosati Code	2	Two digits 00 through 22
B15	Copy Number	3	Three digits used with expendability code (B05) or status code (B19) to indicate copy number. For an Add transaction (26), may be 1, 2, or 3 digits to indicate number of copies to be added.
B16	Total Copies	999	Internally generated and may not be accessed except to Display (Action 36).
B17	Patron Address		Same as B16.
B18	Date of Loan		Same as B16.
B19	Status Type	1	Entered with a copy number which is three digits followed by one of the following valid status types:
			<ul style="list-style-type: none"> 1 - Regular 180 day loan 2 - Inter Library Loan 8 - Issue slip loan 9 - Long-term load C - In cataloging L - Lost D - Salvaged E - On order F - On shelf G - In bindery R - Received T - Transferred A - Reprocess I - Inventory adjusted out S - Reference B - Blank copy
B20-B28 and B30-B32	Order Data		May be displayed only from Cataloging Subsystem. Changes must be made from Ordering and Receiving Subsystem.
B33	Imprint	999	Same as Title.

Check Status Code (B19)
before changing 2.1.3
Adjust Book.

B34	Number of Times Circulated		Same as B16.
B35	Latest Unit Price		Same as B16.
B36	Corporate Author	999	Same as Title.
B37	Corporate Address	999	Same as Title. Cannot have B37 without B36.
B38	Main Entry	2	Two digits corresponding to element code of main entry.
B39	Contract Number	999	Same as Title.
B40	Subcontract Number	999	Same as Title.
B41	Project Number	999	Same as Title.
B42	Grant Number	999	Same as Title.
B43	Report Number	999	Same as Title.

USER (DATA) ERROR MESSAGES

1. ERROR --- XXX (Field name associated with XXX) (list of bad data omitted).
Error encountered in editing data element XXX.
Correct the errors and resubmit transaction.
2. ERROR --- INVALID ELEMENT CODE XXX
PROCESSING TERMINATED
Element code XXX is invalid (See list of valid element codes for cataloging subsystem.)
3. ERROR --- INVALID COSATI SUBJECT CODE --- XX
Cosati code must be two numerics in range 00 through 22 inclusive.
4. ELEMENT CODE XXX UNACCEPTABLE (Bypassed data).
Element code XXX is valid element code but it is an internally generated element which cannot be updated or altered by the user.
5. ERROR --- ELEMENT CODE B01

 Main Class Invalid
 Main Class Too Long
 Main Class Contains a Numeric Character
 Subdivision Too Long
ONE Subdivision Contains Invalid Character
OR Further Subdivision is Too Long
MORE Further Subdivision Contains Unacceptable Character
OF Cutter Number Starts With Invalid Character
THESE Cutter Number Is Too Long
 Balance Of Identification Too Long
 Date Field Contains An Invalid Blank
 Date Field Contains An Unacceptable Character
 Date Not In Range 1599 To Current Year

These messages come from editing of LC Number and all except the last one terminate processing and must be corrected and reentered. The last message is only a warning and the action will be processed with the date as input.

6. ERROR --- ELEMENT CODE XXX

THE FOLLOWING INVALID DATA HAS BEEN OMITTED

(omitted data)

Input for element XXX is invalid. The bad data is omitted and processing continues with remainder of action.

7. ELEMENT CODE --- B02 --- CANNOT BE DELETED

This message is a result of deleting all title data without adding another. A Book Master Record must have a title.

8. INVALID INPUT FOR B15-COPY NUMBER --- TERMINATED

Either copy number is not numeric or is more than three digits or, for 18 action code, the account number format is incorrect.

9. INPUT MUST BE INCREASED OR DECREASED --- RESUBMIT

The number of characters input must be either increased or decreased. (Simply insert an extra space or take out an unnecessary space somewhere.)

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

CA06 Chain-Fstloc-Pb = 0 but Trans-Pb indicates that it should not be.

CA09 invalid key on read Tswork record.

CA10 invalid IL on read Tswork record.

CA11 Tswork chain address = 0 but Trans-Pb indicates that it should not be.

CA12 More than 10 segments for Book Master Record

CA12 Invalid key on write Tswork record.

CA13 invalid key on write Tswork record.

CA51 Invalid key on read prior to write of Tswork record.

CA52 Invalid key on read prior to write of Tswork record.

2.1.2 Add Book - Action Code 26

This action causes a book master record containing the input data to be added to the file. It also causes the book to be cross-referenced to the following indexes where applicable:

1. Title
2. Author, Corporate Author, Editor, Compiler, Translator, and Illustrator
3. Subject
4. LC Call Number
5. Contract Number, Subcontract Number, Project Number, Grant Number and Report Number.

The following elements are mandatory for adding a book to the file:

1. LC Call Number (B01)
2. Title (B02)
3. Number of Copies (B15)
4. Expendability/Media Code (B05)

The action code is input first followed by a slant bar. Following the Action Code and slant bar may be any valid element code with its data and terminated by a slant bar. The sets of element code, data, and slant bar may be repeated to include all mandatory and other desired elements to catalog a book in the RSIC data file.

Example: 26/B01TK 6642 M629 1982/B02TV TROUBLE

SHOOTING AND REPAIR/B15002/B05A '#

All copies added may be given the same media code as in the example above or they may be given different media codes by individual copy numbers.

Example: B05001A,002C assigns 'A' to copy 1 and 'C' to copy 2.

Data elements may be added in any sequence and more than once per transactions. However, in the case of multiple entries per element code, it is more desirable to add them as a single element code with data entries separated by double commas. For example, two authors:

B03JONES JOHN J.,SMITH S D/

Single copies may be added to the file as copy two with the following input for B15:

B151,002/

With this format one copy is built starting with copy two. Only one copy may be by-passed and it can only be copy one.

MANDATORY ITEMS TO CREATE BOOK RECORD (ADD BOOK 26)

- | | |
|-----------------------|-----|
| 1. LC# | B01 |
| 2. Title | B02 |
| 3. Number of Copies | B15 |
| 4. Expend./Media Code | B05 |

TO CREATE DUMMY BOOK RECORD FOR NOTES (SEE, SEE ALSO, ETC.)

1. Use dummy LC # such as:

Z1 0001 L01 1972

} [Used by catalogers to maintain
uniqueness (Seq #)

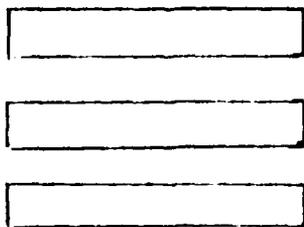
2. Use dummy title such as AAAAA (AAAAA required to force sort of dummy book in front).
3. Use 01 for Number of Copies. } Not Used, input only to satisfy existing edit criteria.
4. Use any valid expend/media code such as A. }
5. Input the note name under author B03.
6. Input the note information using the Bib Par Code B06.

EXAMPLE

26/B01 Z1 0001 L01 1972/B02AAAAA/B15001/B05A/
B03 INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS/
B06SEE ALSO I E E E 'EOB

This would print as follows:

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
SEE ALSO I E E E



} Remaining INSTITUTE OF ELECTRICAL
AND ELECTRONICS ENGINEERS



USER (DATA) ERROR MESSAGES

1. ELEMENT CODE-BXX INVALID---THE FOLLOWING DATA HAS BEEN OMITTED
(List of bad data).

User action: Reinput transaction correcting indicated bad element code.

2. MORE THAN ONE BLANK COPY REQUESTED --- ONLY ONE PUT ON BMR.

No action required on part of user.

3. (a) LC NUMBER NOT PRESENT
(b) TITLE NOT PRESENT
(c) COPY INFORMATION NOT PRESENT
(d) EXPENDABILITY/MEDIA CODE NOT PRESENT

The appropriate message is printed if any mandatory items are omitted. Correct and reinput.

4. INPUT EXCEEDS LIMIT

The maximum number of characters allowed for an Add Book transaction is 3000 characters. This message indicates that this limit has been exceeded. This condition can be avoided by adding the book without some of the information then adding the desired data to the record by using an Adjust Book (27) Action.

5. BOOK--- (LC Number) ALREADY ONFILE---TRANSACTION TERMINATED

The book being added is already on file. Examine input LC Number for possible error.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- CB01 - Invalid key on read BMR (Book Master Record).
- CB03 - Invalid key or Invalid ID on Tswork record. (May be corrected by adding mandatory elements with B26 and additional elements with B27)
- CB04 - Invalid key on write Tswork record.
- CB05 - Invalid key on write BMR overflow.
- CB06 - Invalid key on read BMR overflow.
- CB07 - Invalid ID on BMR overflow.
- CB08 - Invalid key on write BMR overflow.
- CB10 - Invalid key on read Accession record.
- CB13 - Invalid ID on Accession record.
- CB14 - Invalid key on write Accession record overflow.
- CB15 - Invalid key on write Accession record primary.
- CB18 - Invalid key or ID on read LC Index record.
- CB19 - Invalid key on write LC index record overflow.
- CB20 - Invalid key on write LC Index record primary.

2.1.3 Adjust Book - Action Code 27

The purpose of this program is to change elements of data in the book master record (BMR) by deletion, addition or a combination of both.

The following capabilities are available:

1. Change a temporary LC number (ZZ number) from Ordering and Receiving to a permanent LC number.
36/B01 (ZZ number) '#
27/B01 (permanent LC number) '#
2. Change copy status from 'R' to 'C' is done automatically by adjust book action except when copies are added. Minimum input required:

27/B01 LC number '#
3. Change COSATI Code is done by inputting two digits 00 through 22. Valid input will replace the code on BMR. Input of B14\$ will put 00 in BMR.
Example: 27 or 27A/B01 LC nbr/B14NN'#
4. Main entry is a two-digit numeric from the following list:

02,03,07,08,10,11,36

Valid input replaces existing BMR entry.
B38\$ blanks out existing BMR entry.

Example: 27/B01 LC nbr/B3803'#
5. LC card number can be up to 8 characters.

Valid input replaces existing BMR entry.

B29\$ blanks out BMR entry.

Example: 27/B01 LC nbr/B29(1 to 8 chars) '#
6. B15 - added copies.

As noted in 2 above, no input for this element causes all 'R' status codes to be changed to 'C' automatically.

B15N causes N copies to be added to existing BMR. N may be a one, two, or three digit numeric. Copies will be added with a 'C' status and 'A' media unless specified otherwise with B19 and B05 for added copies.

7. B05 - Expendability/media code.

B05X, where X is one character A through I, changes the media code of all copies of book to X (A thru I).

B05NNNX changes media code of copy NNN to X (A thru I).

B05NNNX,NNNX,... changes media code of specified multiple copies.

8. B19 - Status code.

The following status codes may be changed as indicated:

C - may be changed to C

F - may be changed to C or G

C - may be changed to b, G, or S

E - may be changed to B

S - may be changed to C

B - may be changed to C or F

B19002C,004G changes status of copy 2 to C and copy 4 to G. Status of all copies of a book may be changed in one transaction by repeating copy number and status separated by a comma.

9. Variable data elements.

The variable data elements are: Title (B02), Author (B03), Subject headings (B04), Bibliographic paragraph (B06), Editor (B07), Compiler (B08), Language (B09), Illustrator (B10), Translator (B11), Series (B12), Informal notes (B13), Imprint (B33), Corporate Author (B36), Corporate Address (B37), Contract number (B39), Subcontract number (B40), Project number (B41), Grant number (B42) and Report number (B43).

Each of these elements may have one or more entries on the BMR or be deleted entirely except for Title which must be present. Individual entries can be deleted or new entries added.

Examples:

27/B01 LC nbr/B03S'‡ deletes entire Author

27/B01 LC nbr/B032S'‡ deletes second Author

27/B01 LC nbr/B031S, new author '‡ deletes first author and adds a new one.

27/B01 LC nbr/B031S,3S, new author '‡ deletes first and third authors and adds new author.

10. A special action code (LCX) is used to change an LC number.

Example:

LCX/B01(old LC nbr)/B98(new LC nbr) '‡

USER (DATA) ERROR MESSAGES

1. ELEMENT CODE - XXX PRESENT BUT NO DATA

Element code XXX followed by '/' should be followed by data. Processing of remainder of action continues.

2. ELEMENT CODE - XXX EXCEEDS LIMIT

More than the maximum number of characters has been input for element XXX. Remaining elements of transaction will be processed.

3. ELEMENT CODE - XXX UNACCEPTABLE

Element code XXX is invalid for this action.

4. ERROR --- TRANSACTION MUST BE PRECEDED BY DISPLAY

Action code 27 either was not immediately preceded by a display action (36) or the display did not process normally.

5. LC NBR DUPLICATE OF ON FILE NUMBER

Attempting to change a temporary (ZZ) LC number to a permanent number disclosed that the permanent number was on the file already.

6. COPY NUMBER IS MORE THAN 3 DIGITS --- RESUBMIT

7. NO DATA ON BMR FOR ELEMENT - XXX

DELETE IGNORED --- ADD PROCESSED IF PRESENT

Attempt to delete an element for which there is no data on the book master record. If the delete is followed by an add, the add will be processed.

8. ELEMENT CODE - B02 CANNOT BE DELETED ENTIRELY

Title is a mandatory element on the BMR; therefore it cannot be deleted entirely (B02\$/). It may be deleted if a new title is added by the same action (B02\$, new title).

9. CORPORATE ADDRESS WITHOUT CORPORATE AUTHOR

It is invalid to have a Corporate Address without a Corporate Author.

10. SEQUENCE - YY ELEMENT CODE - XXX NOT FOUND

Attempt to delete entry YY of element XXX and entry YY does not exist.

11. INPUT COPY NUMBER - XXX IS GREATER THAN NUMBER OF COPIES ON BMR

12. STATUS TYPE - Y --- NOT VALID FOR COPY -- XXX.

Copy XXX has status which cannot be changed to status Y.

13. ERROR --- (LC NUMBER)

DELETE ACTIONS EXCEED LIMIT OF PROGRAM

More than 50 index entries (B02, B03, B04, etc.) are being deleted in one action. Break them down into two or more actions of less than 50 deletes per action.

14. ELEMENT - XXX TO BE DELETED NOT ON BMR --- CHECK SEQUENCE NBR

Entry of element code XXX being deleted does not exist. Check input for incorrect sequence number.

15. NO CONTRACT DATA ON BMR --- DELETE ACTION IGNORED

Attempt to delete one of elements B39 thru B43 and the element is not on the BMR. If the delete is followed by an add, the add is processed.

16. INVALID STATUS CHANGE COPY - XXX

The status code input for copy XXX is not valid for this action type (27 or 27A).

17. EXPECTING DATA TO BE ADDED AFTER COMMA

This message occurs when deleting entry and indicating with a comma that more data follows but data is not present.

Example: B06S,/ - comma indicates more data to follow.

18. EXPECTING NUMERIC SEQUENCE NUMBER TO BE DELETED

Sequence number of entry to be deleted not numeric.

Example: B12NS or B131S,XS

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- CC01 - Invalid key on read BMR
- CC02 - Invalid ID on BMR
- CC03 - Invalid key on read BMR
- CC04 - Invalid ID on BMR
- CC05 - Invalid key on write BMR
- CC10 - Invalid key on read BMR
- CC10A - Invalid key on read BMR
- CC11 - Invalid ID on BMR
- CC11A - Invalid ID on BMR
- CC13 - Invalid key on write LC Index
- CC1A - Invalid key on write LC Index
- CC1C - Invalid key on read LC Index
- CC1D - Invalid ID on LC Index
- CC1E - Invalid key on write LC Index
- CC1F - Invalid key on write LC Index
- CC20 - Invalid key on read LC Index
- CC21 - Invalid ID on LC Index
- CC24 - Invalid key on write BMR
- CC25 - Invalid Key on read BMR
- CC26 - Invalid ID on BMR
- CC31 - Invalid key on write BMR
- CC31R - Invalid key on read or write BMR
- CC32 - Invalid key on read Accession record
- CC33 - Invalid ID on Accession record

CC35 - Invalid key on write Accession record
CC45 - Invalid key on read Tswork record
CC46 - Invalid ID on Tswork record
CC53 - Invalid key on write BMR
CC530 - Invalid key on write BMR
CC77 - Invalid element
CCE01 - Invalid key on write BMR
OOP3 - Invalid key on read BMR
OOP4 - Invalid key on read BMR
OVR1 - Invalid key on read BMR
OVR2 - Invalid ID on BMR
OOP5 - Happens when entry being deleted is preceded by double commas
(,,), one on previous segment and one on same segment as
deleted entry.

ERROR!!! - Caused by falling through coding which should only be
performed.

TOTAL COPY COUNT IN ERROR --- (LC number)

MORE THAN 20 COPIES ON ORDER - An attempt is being made to add copies
to a BMR which has more than 20 copies on order, not
permitted by the program.

2.1.4 Delete Book - Action Code 35

The delete program removes a book from the RSIC file and all cross-references to the book from the appropriate indexes.

All copies of a book are checked for status before a deletion may take place. Valid status types for a delete transaction are:

- C - In Cataloging
- D - Salvaged
- F - On Shelf
- R - Received
- T - Transferred
- I - Inventory Adjusted Out
- S - Reference Copy
- B - Blank Copy

When all copies of the book have been examined and found to be valid for deletion, the LC Index is searched for the LC Number of the book being deleted. The LC Number is then deleted from the index. The address of the BMR is then passed to the Index Maintenance program for deletion of other index entries. The BMR address is also put on the deleted books record for printing by the Delete Book program.

Action code, slant bar, LC Number is all that is necessary to process a delete.

Example:

35/B01QC 314 L17 1981 '#

USER (DATA) ERROR MESSAGES

1. DELETE MUST BE PRECEDED BY DISPLAY

The delete action was not immediately preceded by a display or the preceding display did not work.

2. COPY NUMBER-XXX---ON LOAN

Status of copy XXX is 1, 2, 8, or 9 and cannot be deleted while in this status.

3. COPY NUMBER-XXX---ON ORDER

Status of copy XXX is E and cannot be deleted.

4. COPY NUMBER-XXX---IN BINDERY

Status of copy XXX is G and cannot be deleted.

5. ERROR--LC NOT ON INDEX or LC NBR NOT IN INDEX

LC Number on BMR not found on LC index. If the display executed correctly this could mean that the incorrect LC Number is on the BMR. Call responsible programmer/analyst if this happens.

6. COPY NUMBER-XXX---REPROCESS

Status of copy XXX is A and cannot be deleted.

7. COPY NUMBER-XXX---LOST

Status of copy XXX is L and cannot be deleted.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- CF01 - Invalid key on read BMR primary.
- CF02 - Invalid ID on BMR primary.
- CF03 - Invalid key on read BMR overflow.
- CF04 - Invalid ID on BMR overflow.
- CF05 - Invalid key on read LC Index.
- CF06 - Invalid ID on LC Index.
- CF07 - Invalid key on write LC Index primary.
- CF08 - Invalid key on write LC Index overflow.
- CF09 - Invalid key on read LC Index.
- CF10 - Invalid ID on BMR.
- CF11 - Invalid key on read Book Statistics record.
- CF12 - Invalid ID on Book Statistics record.
- CF13 - Invalid key on write Book Statistics record.
- CFDLT - Invalid key on read Deleted Books record.
- CFDID - Invalid ID on Deleted Books record.
- CFBAD - Invalid key on write Deleted Books overflow record.
- CF14 - Invalid key on write Deleted Books primary record.

2.1.5 Salvage - Action Code 17

Transfer - Action Code 18

Inventory Adjust Out - Action Code 19

Since these three functions are all performed by the same program and therefore have some error messages in common, they will be documented together.

Salvage (17) allows individual copies of a book to be removed from accountability. Copy status must be:

F - On Shelf

S - Reference

Input is action code, slant bar, LC Number, slant bar, and copy number to be salvaged.

Example: 17/B01AC 8 M836 1981/B15001'#

The above example will salvage copy number one. If more than one copy of a book is to be salvaged, it can be done by repeating the copy number separated by commas:

B15XXX,XXX,XXX... for any number of copies. Copy number must be three digits.

Transfer transaction (18) transfers copies to other libraries. The status code must be on shelf ('F') or on loan ('1', '2', '8', or '9').

Input is action code, slant bar, LC Number, slant bar, and copy number - account number.

Example: 18/B01TK 7882.3 M14 1970/B15002A-67-001'#

Copy number must be three digits and account number must be 8 characters of the form A-67-001. If multiple copies are to be transferred they may be input as follows:

B15002A-67-004A-67-002,... for any number of copies.

Inventory Adjust Out transaction (19) adjusts out lost copies. The status is checked for lost ('L'). Input is action code, slant bar, LC Number, slant bar, and copy number.

Example:

36/B01Q 14 L186 1981'*

19/B01Q 14 L186 1981/B15002'*

Copy number may be one, two, or three digits.
Multiple copies may be processed by repeating copy
numbers separated by commas:

B15002,004,009,... for any number of copies.

USER (DATA) ERROR MESSAGES

1. ACTION CODES 17, 18, AND 19 MUST BE PRECEDED BY A DISPLAY ---
RESUBMIT

Either the transaction was not, in fact, preceded by a display or the display did not process normally. Be sure the LC Number is correct and resubmit.

2. INVALID ELEMENT --- MUST BE B15

The only permissible element code other than LC Number is B15 (copy number). Check input and resubmit correctly.

3. THE STATUS OF COPY XXX IS INVALID

Somehow an invalid status code has gotten on the file. Call responsible programmer analyst.

4. THE STATUS OF COPY XXX IS (one of 17 valid status)

If an attempt is made to salvage, transfer or inventory adjust out a copy having an invalid status for that transaction, this message will be displayed and the attempted action will not be performed. However if multiple copies are being processed per transaction, the other copies will be processed individually.

5. COPY NUMBER EXCEEDS TOTAL COPIES

COPY NUMBER XXX

Check the input. XXX is greater than total number of copies on this book.

6. (LC Number) TRANSFERRED

(LC Number) SALVAGED

(LC Number) I A O

Not an error condition. Merely tells you that the transaction terminated normally.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following errors is received.

- CE001 - Invalid key on read or write BMR
- CE002 - Invalid key on read Tswork record
- CE003 - Invalid ID on BMR
- CE004 - Invalid ID on Patron record
- CE005 - Invalid key on read or write patron record
- CE006 - Invalid ID on Tswork record
- CE007 - Invalid key on read or write Book Statistics record
- CE008 - Invalid ID on Book Statistics record
- CE09 - Zero chain address on patron record
- CE009 - Invalid key on read or write Patron Statistics record

2.1.6 Found - Action Code 34

This transaction returns a copy that has been transferred, salvaged, or inventory adjusted out. The copy status is changed to 'C' (Cataloged).

Input is action code, slant bar, LC Number, slant bar, and copy number.

Example: 34/B01AC 8 M836 1981/B15024'*

No more than two copy numbers may be input for each B15, however, B15 may be repeated as often as necessary per transaction.

34/B01AC 8 M836
1981/B15001/B15002,005/B15017/B15024,028/...etc.

Copy number must be three digits.

Found copies will be given media code 'A'. If this is not correct the media may be changed by using an adjust book action (27 or 27A).

USER (DATA) ERROR MESSAGES

1. THE REQUIRED INPUT - A LC NUMBER AND A COPY NUMBER - IS NOT PRESENT

Either LC Number or copy number was omitted from input. Correct and resubmit.

2. COPY XXX OF LC NUMBER (LC Number) HAS INVALID STATUS TYPE FOR FOUND TRANSACTION

Copy being found is not salvaged, transferred, or adjusted out. Check input to be sure it is correct.

3. COPY XXX OF LC NUMBER (LC Number) EXCEEDS TOTAL NUMBER OF COPIES XXX is greater than total copies on BMR. Correct input and resubmit.

4. Appropriate messages indicating completed transaction will be displayed upon completion of processing.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- CG01 - Invalid ID on BMR
- CG02 - Invalid key on read or write BMR
- CG04 - Invalid ID on Book Statistics Record
- CG05 - Invalid key on read or write Book Stat.

2.1.7 Display - Action Code 36

The display program can be used to display any information stored on the Book Master Record. The allowable input formats are:

1. 36/B01 (LC Number)/BIB'#
2. 36/B01 (LC Number)/ALL'#
3. 36/B01 (LC Number/ALLCOPY'#
4. 36/B01 (LC Number/(element code) '#

When 'BIB' option is used a standard display is obtained consisting of LC Number, Title, and Author/Corporate Author/Corporate Address.

'ALL' option displays same information as 'BIB' plus Bibliographic paragraph, Subject headings, Editors, Compilers, Language, Illustrators, Translators, Series, Informal Notes, Imprint, Cosati Category, Main Entry, and Date Cataloged. 'ALLCOPY' displays same information as 'ALL' plus the status of each copy.

Element code in format '4' may be any of the following:

- B01 - LC Number
- B02 - Title
- B03 - Author
- B04 - Subject
- B05 - Expendability Code
- B06 - Bibliographic paragraph
- B07 - Editor
- R08 - Compiler
- B09 - Language
- B10 - Illustrator
- B11 - Translator
- B12 - Series
- B13 - Informal Notes
- B14 - Cosati Code
- B15 - Copy Number
- B16 - Total Copies
- B17 - Patron Name
- B18 - Date of Loan
- B19 - Status
- B20 - Order Type
- B21 - Recall
- B22 - Recall Date
- B23 - Order Number
- B24 - Item Number
- B25 - Vendor Code
- B26 - Quantity on Order
- B27 - Unit Price
- R28 - Quantity Received

B29 - LC Card Number
B30 - Order Notes
B31 - Unit of Issue
B32 - Order Message or Comments
B33 - Imprint
B34 - Number of Times Circulated
B35 - Latest Unit Price
B36 - Corporate Author
B38 - Main Entry
B39 - Contract Number
B40 - Subcontract Number
B41 - Project Number
B42 - Grant Number
B43 - Report Number

Elements B15, B17, B18, B19, B21, and B22 are displayed when B15 is requested. Elements B17 and B18 are displayed when either a B17 or B18 is requested. Both B21 and B22 are displayed when either is requested.

When information pertinent to copies is requested, the information is displayed for all copies if the input is just element code.

Example: 36/B01LC nbr/B19'#

will display the status for all copies. If the information is desired for specific copies, the element code may be followed by one or more three digit copy numbers separated by a comma.

Example: 36/B01 LC nbr/B05001,005'#

will display the expendability of copies 1 and 5.

More than one element code can be used in a transaction and any combination of the four formats may be used.

Example: 36/B01LC number/B09/BIB/B170001,003'#

USER (DATA) ERROR MESSAGES

1. INVALID INPUT (Incorrect portion of input)

Input transaction does not agree with the four acceptable formats or combinations. Correct and resubmit.

2. INVALID CODE

Cosati code on BMR is bad. Use adjust book action (27 or 27A) to correct.

3. ELEMENT CODE XXX INVALID

Element code in input is not three characters in range B01 through B43 inclusive.

4. INVALID COPY NUMBER

Copy number requested is greater than total number of copies on BMR.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

CH001 - Invalid key on read BMR

CH002 - Invalid ID on BMR

CH003 - Invalid key on read TSWORK record

CH004 - Invalid ID on TSWORK record or Invalid key on read BMR overflow

CH005 - Invalid ID on BMR overflow or Invalid key on Recall record

CH006 - Invalid ID on REcall record

CH007 - Invalid key on Patron record

CH008 - Invalid ID on Patron record

C2122 - Book record indicates copy on recall but recall record does not have an entry for that book.

INVALID STATUS TYPE

2.2 PATRON SUBSYSTEM

The Patron Subsystem provides the necessary capabilities for maintaining a current file of RSIC patrons.

2.2.1 Edit Program

This program edits the input of all patron actions except verify patron for data element format errors. Data elements are edited as follows:

1. P01 - Social Security Number - must be 9 or 10 numeric characters.
2. P02 - Surname - 1 to 16 alphabetic characters, quote, and dash. Blanks are eliminated.
3. P03 - Given names - 1 to 18 alphabetic characters, quote, and dash. Multiple blanks are reduced to a single blank.
4. P04 - Surname suffix - 1 to 5 characters.
5. P05 - Patron title - 1 to 8 characters.
6. P06 - Patron type - 1 of the following characters:
 - A - Army
 - C - Contractor
 - M - Military
 - N - NASA
 - O - Other
 - R - Army Contractor
 - S - NASA Contractor
 - B - Both Contractor
7. P07 - Security clearance code - 1 of the following characters:
 - U - Uncleared
 - C - Confidential
 - S - Secret
 - T - Top Secret
8. P08 - Citizenship - 2 numeric characters to match a table entry.
9. P10 - Telephone number - 7 numeric characters.
10. P11 - Telephone extension - 3 numeric characters.
11. P12 - Contractor name - 4 numeric characters to match a table entry.
12. P13 - Mail symbol - 1 to 18 alphabetic characters, plus sign, and dash.

13. P14 - Building number - 1 to 5 characters.
14. P15 - Room number - 1 to 7 characters.
15. P16 - Street address - 1 to 21 characters.
16. P17 - City - 1 to 15 characters.
17. P18 - State - 1 to 6 characters.
18. P19 - Zip code - 5 numeric characters.
19. P24 - Need-to-know codes - 3 characters, must be in the code table. Multiple entries are separated by a comma.
20. P25 - Comments - 1 to 147 characters.
21. P26 - Journal routing codes - 6 numerics (serial control number), space, and 1 numeric (patron flag: 0 = regular, 1 = special). Multiple entries are separated by a comma.

USER (DATA) ERROR MESSAGES

1. INVALID NAME CHARACTER IN SURNAME
Resubmit transaction with correct input.
2. SURNAME EXCEEDS LIMIT
Shorten surname and reenter the transaction.
3. INVALID CHARACTER IN GIVEN NAME
Reenter action with correct input.
4. GIVEN NAMES EXCEED LIMIT
Shorten given names and reenter the transaction.
5. INVALID ELEMENT CODE - XXX
(OMITTED DATA)
6. INVALID SSNUMBER CHARACTER
Reenter SSN with 9 or 10 numeric characters.
7. SSNUMBER LENGTH INVALID
Resubmit transaction with 9 or 10 numeric characters for the SSN.
8. INVALID DATA FOLLOWING ELEMENT CODE PXX
(OMITTED DATA)
Enter a change transaction with omitted data corrected.
9. SURNAME EXCEEDS LIMIT --- THE FOLLOWING DATA OMITTED
(OMITTED DATA)
Resubmit transaction shortening the surname.
10. GIVEN NAMES EXCEED LIMIT --- THE FOLLOWING DATA OMITTED
(OMITTED DATA)
Resubmit transaction shortening the given names.
11. ELEMENT CODE --- PXX --- INVALID FOR THIS ACTION CODE
Resubmit transaction with the valid action code.

12. TELEPHONE NUMBER MUST BE 7 NUMERICS

Resubmit transaction with correct data.

13. ELEMENT CODE --- PXX --- COMMENTS EXCEED LIMIT

THE FOLLOWING DATA HAS BEEN OMITTED

(OMITTED DATA)

Resubmit transaction with comments less than 148 characters.

14. INVALID CHARACTER AFTER / --- THE FOLLOWING OMITTED

(OMITTED DATA)

No user action required.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PE01 - Invalid key on read Tswork record
- PE01 - Invalid key on write Tswork record
- PE01 - Invalid ID on Tswork record

CONTRACTOR CODES

0080 - A&M Univ.
0085 - AC Electronics
0087 - Acudata Systems Inc.
0088 - Adams Mfg. Co.
0090 - Aerojet Solid Propulsion Co.
0100 -
0120 -
0150 - Al Space and Rocket Center
0175 -
0200 - American Science and Engr
0202 - American Technology Corp
0207 - Analytics Inc
0210 - Anderson Assoc
0125 - Aerospace Res Application Ctr
0218 - Applied Research
0220 - Arlyn Associates
0300 -
0350 -
0400 - Associated Technology Consultants
0480 - Astro Space Labs Inc
0488 - Athena Engineering Co
0490 - Athens State College
0500 - Atlantic Research Corp
0510 -
0520 - Auburn University
0530 - Avco Corp

0550 -
0600 - B-K Dynamics Inc
0615 - Baldwin Electronic
0620 - Ball Brothers Research Corp
0625 - Battelle Memorial Institute
0640 - The BDM Corp
0650 - Bell Aerospace Textron
0660 -
0680 - Bendix Corp
0700 -
0725 - Bledsoe Precision Mfg
0749 - Bush & Milimaki Services
0750 - Boeing Co
0751 - Brunswick Corp
0752 - Esneault Assoc
0754 -
0755 - Borders Electronics Co Inc
0780 -
0800 - Burroughs Corp
0810 - CACI
0820 - CAS, Inc.
0830 - Calhoun College
0840 - Cedarwood Systems
0850 - Celesco
0855 - CEPAC Eng
0870 - Cham of North AM Inc
0910 - Chrysler Corp

0930 -
0950 - Code Research Corp
0975 -
0990 - Command Control Communication Corp
1000 - Comprehensive Consultant Co., Inc.
1050 - Compunet, Inc.
1100 - Computer Sciences Corp
1110 - Computer Software Analysis Inc
1120 - Connell, Bell & Ellis Inc
1130 - Consolidated Ind
1135 - Continuum Inc
1155 - Control Data Corp
1156 - Control Dynamics Co.
1157 - Corbett Tech. Co. Inc.
1158 - Delta Research Inc.
1160 - DP Assoc
1170 - Dynetics Inc
1200 -
1300 - Electronic Assoc Inc.
1330 - Electronic Warfare Associates
1350 - Emerson Electric Co
1360 - Engineering Analysis Inc
1370 - Esneault Assoc
1375 - ESPE, Inc.
1380 - Essex Corp.
1400 - Fairchild Industries
1450 -

1480 - Florida Inst of Tech
1500 - Ford Aerospace & Comm Corp
1560 - General Dynamics
1590 - General Electric Co
1600 -
1650 -
1700 - General Research Corp
1715 - Georgia Tech
1720 - Guest Assoc Inc
1760 - Harmon Engineering
1780 - Hayes International Corp
1800 -
1820 - Hercules Inc
1825 - Hewlett Packard
1865 - Honeywell
1900 -
1920 - Hughes Aircraft Co
1950 - Huntsville Microcircuits
1960 - HURT, Inc
1968 - Hybrid Comp Serv
1980 - IBM Corp
1985 - Information Research Assoc
1986 - Integrated Enterprises
1987 - Intergraph
1988 - Intermetrics Inc
1989 - International Radar Directory
1990 - Intertech Research Services Inc

1995 -
2000 -
2025 -
2085 - ITT Corp
2086 - JMA, Inc
2087 - John M. Cockerham & Assoc Inc
2090 - Kaman Sciences Corp
2100 - Kelsey-Seybold
2120 -
2155 - Kentron-Hawaii Ltd
2190 - Litton Data Sys
2200 - Lockheed Missiles & Space Co
2240 - Vought Corp
2250 -
2250 - M.E.C.
2270 - M. Tech.
2275 - MK Associates
2300 - Management Service Inc
2310 - Mandex
2350 - Mantech International
2400 - Martin Brothers
2410 - Martin-Marietta Corp
2415 - Martin Marietta Hqs.
2416 - Mass Inst of Tech
2420 - URS - Matrix Co.
2425 - McDonnell-Douglas Astronautics
2426 - McDonnell-Douglas Tech Serv

2428 - Mercury
2430 - MEDTHERM Corp
2431 - Metro Contract Serv Inc
2432 - Mississippi State Univ
2433 - Mitchell-Gauthier
2434 - Microelectronics Engineering Corp
2435 - Mitre Corp
2500 - Moore-Cope Inc
2550 -
2600 -
2670 - National Academy of Sciences - NRC
2672 - New Technology
2673 - Nichols Research
2675 - Noland Engr Co
2680 - Rockwell International - Missile Sys Div
2755 - Rockwell International - Space (same as North American)
2770 - Northrop Corp
2780 - Northrop Services Inc
2800 -
2805 - OAO Corporation
2810 - Online Application Research
2830 - Optimal Data Corp
2840 - Payne College
2845 - Patel Enterprises
2850 PBR Electronics
2852 - PCS, Inc.
2854 - PDC Assoc. Inc.

2855 - Perkin-Elmer Corp
2890 - Philco-Ford Corp Aeronutronics
2895 - Philips Bec
2897 -
2900 - Planning Research Corp
2925 - Potomac Research
2950 - PPG Industries
3000 - PRC Tech Applications
3010 - Precision Electronics Lab
3020 - Raytheon Co
3040 - RCS Corp-EASD
3060 - RCA Service Co
3062 - RLT, Inc
3065 - REMTECH Inc
3075 - Resource Engineering
3076 - Ride Instrument
3077 - Riverside Research
3078 - Rocketdyne
3079 - Rockwell
3080 - Sanders Assoc Inc
3090 - W. J. Schafer Assoc
3100 - SCI Systems Inc
3110 - SCITEK (Formerly SCICOM, Inc. older patrons will probably be
under SCICOM)
3125 - Science Applications Inc (SAI)
3130 - Scientific Research Co
3140 - Scientific Services

3150 - SEMTEC, Inc
3165 - Rohm & Haas Co
3180 - Sharma & Assoc Inc
3200 - Singer Co-Kearfott Div
3225 - Southeastern Inst of Tech
3250 - Southern Technologies
3550 - Space Inc
3560 - SPARTA, Inc
3575 - Spectra Research Systems
3585 - Sperry Rand Corp (Now Sperry Systems Mgt)
3588 - Sperry-Univac
3595 - Stanford Research Institute
3600 - Superior Technical Services
3630 - System Development Corp
3635 - System Dynamics Inc
3640 - Systemed Corp
3650 - System Planning Corp
3655 - Systems Services Corp
3658 - Systems & Applied Sciences Corp
3650 - Systems Control
3660 - Systems Eng Co
3662 - TAI Corp
3665 - TARCOG
3666 - Tech Tran Corp
3667 - TECHNICOR
3668 - Technology Development Corp
3670 - Technology Service Corp

3700 - Teledyne Brown Engineering
3720 - Texas Instruments
3780 - Thiokol Chemical Corp
3800 - TMC Inc
3850 - Toroid Corp
3860 - TRIAD Microsystems
3870 - TRW Systems
3880 - Unidev Inc
3885 - United Space Booster Inc
3890 - United Technology Center
3900 - UNIVAC
3920 - Univ of Al-Huntsville
3920 - Univ of Al-Tuscaloosa
3925 - Univ of Cal-Berkeley
3930 - Universities Space Res Assn
3958 - UT-Space Institute
4000 -
4100 - Utah State U
4190 - Vitro Services
4194 - WCW Assoc, Inc
4195 - Wester Tech Assoc (WTA)
4200 - Western Ky Univ
4250 - Westinghouse Electric Corp
4310 - Wyle Labs
4350 - Xerox

COUNTRY CODES

01	United States	25	Argentina
02	Canada	26	Bolivia
03	England	27	Egypt
04	West Germany	28	Ireland
05	France	29	Jordan
06	Japan	30	Korea
07	Spain	31	Malaysia
08	Italy	32	Switzerland
09	Turkey	33	Cuba
10	Israel	34	Venezuela
11	Mexico	35	Brazil
12	Portugal	36	Nicaragua
13	Philippines	37	Iran
14	Australia	38	Nigeria
15	India	39	Vietnam
16	Greece	40	Peru
17	Denmark	41	Kenya
18	Sweden	42	Belgium
19	Norway	43	Thailand
20	Netherlands	44	Africa
21	China	45	Trinidad
22	Taiwan	46	Kuwait
23	Pakistan	47	Cambodia
24	Austria		

2.2.2 Retrieval Program

The Patron Retrieval program searches the appropriate directory to find the address of the desired patron record. The retrieval may be either by social security number or by surname and initials. The identification of the directory desired is extracted from the input message. Retrieval by a 9- or 10-digit social security number must result in a 100 percent match against an entry in the social security number directory. If the retrieval is by surname, the near-match routine will apply. Maximal flexibility of input formats is provided for the near-match routine, such as:

Brown, John James Thomas
Brown, John James
Brown, J. James
Brown, J James
Brown, John J.
Brown, John J
Brown
J. J. Brown
J J Brown

One restriction is that given names may not precede surnames. The maximum length for a surname is 16 characters with no blanks. The maximum length for given names and initials is 18 characters with one significant blank to separate names. The only mandatory requirement of the Alpha near-name match is that the first four characters of the surname must be correct.

USER (DATA) ERROR MESSAGES

1. INVALID NAME INPUT

The surname contains a character other than an alphabetic, dash, quote, period, or comma or the social security number contains a character that is not numeric. The user must correct the input and resubmit it.

2. PATRON NOT IN FILES

The input social security number does not match one on the directory. The user should check for an input error.

3. SURNAME DOES NOT AGREE WITH SSN

The user should check the input for the correct spelling of the surname and for the correct social security number.

4. NEAR MATCH LIST CONTAINS-99-ENTRIES

The user has listed the near match entries and must decide which one will be displayed. Otherwise, none will be displayed.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PC01 - Invalid key on read Alpha Index record.
 - Invalid key on read Tswork record.
 - Invalid key on write Tswork record.
- PC02 - Invalid key on read Alpha Index record.
- PC03 - Invalid key on read Patron record.
- PC04 - Invalid ID on Patron record.
- PC06 - Invalid key on read Tswork record.
- PC07 - Invalid ID on Tswork record.
- PC08 - Invalid key on read Patron record.
- PC09 - Invalid ID on Patron record.
- PC10 - Invalid key on read SSN Index record.
- PC11 - Invalid ID on SSN Index Record.

2.2.3 Add Patron - Action Code 01

The Add Patron program creates a new patron record from the input data and adds it to the file. The patron record is cross-referenced to the following indexes:

1. Social Security
2. Alpha (Surname)

The following data elements are mandatory for adding a patron to the file:

1. Social security number (P01)
2. Surname (P02)
3. Given names (P03)
4. Patron type (P06)
5. Mail symbol (P13)
or
Street address (16)
City (P17)
State (P18)
6. Contractor (P12) - if patron type is 'C,R,S,B'

The following data elements are optional for adding a patron to the file:

1. Surname suffix (P04)
2. Patron title (P05)
3. Citizenship (P08)
4. Telephone number (P10)
5. Telephone extension (P11)
6. Building number (P14)
7. Room number (P15)
8. Zip code (P19)
9. Comments (P25)
10. Journal routing codes (P26)

The input consists of the action code, slant bar, social security number/surname, slant bar, and sets of data consisting of element code, data, and slant bar which include all mandatory and other desired elements for adding a patron. If the patron SSN is already on file and is a deleted status, the data elements no longer applicable must be deleted. The input will contain element code, \$, slant bar.

Data elements may be added in any sequence. In the case of multiple entries, the last entry is added to the file. The only exception is the journal routing indicators (P26) and all entries are added to the file.

EXAMPLE: 01/425809156/P02REILY/P03VIRGINIA L/P06C/
P12BOEING COMPUTER SUPP/P13S+E-COMP-BCS/'#

Virginia L. Reilly employed by Boeing Computer Support Services and having the mail symbol of S&E-COMP-BCS was added to the patron file.

The output is one of the following messages:

PATRON (SSN) HAS BEEN ADDED

or

SS NUMBER - (SSN) IS ALREADY ON FILE IN DELETED STATUS.

THE NAME ON FILE (patron's name)

WILL BE CHANGED TO THE NAME IN THE 'ADD PATRON' ACTION

USER (DATA) ERROR MESSAGES

1. THE DELETE CODE '\$' IS INVALID IN 'ADD PATRON' ACTION.

THE FOLLOWING DATA WAS BY-PASSED:

(BY-PASSED DATA)

No action required by user who was trying to delete need-to-know codes.

2. ELEMENT CODE PXX IS INVALID FOR 'ADD PATRON' ACTION.

ELEMENT WAS BY-PASSED.

No action required by user.

3. THE FOLLOWING ITEMS ARE REQUIRED TO COMPLETE THE 'ADD PATRON' ACTION:

(MISSING MANDATORY ELEMENTS)

USER ACTION: Reenter transaction with all mandatory elements.

4. INVALID PATRON TYPE WITH CONTRACTOR.

CONTRACTOR HAS BEEN DELETED.

No action required by user.

5. THE DELETE CODE '\$' IS INVALID IN 'ADD PATRON' ACTION. THE FOLLOWING DATA CODE WAS BY-PASSED: /PXXX\$

No action required by user.

6. SYSTEM ERROR - PF43.

PROCESSING CONTINUED.

No action required by user. An entry was expected on the delete patron record but it was not located.

7. PATRON - (SSN) IS ALREADY ON FILE.

'ADD PATRON' ACTION TERMINATED.

No action required by user.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PF01 - Invalid key on read SSN Index record
- PF02 - Invalid ID on SSN Index record
- PF03 - Invalid key on read Tswork record
- PF04 - Invalid ID on Tswork record
- PF05 - Invalid ID on SSN Index record
- PF06 - Invalid key on read SSN Index record
- PF07 - Invalid key on write SSN Index record
- PF08 - Invalid key on write Patron record
- PF10 - Invalid ID on Alpha Index record
- PF11 - Invalid key on write Alpha Index record
- PF12 - Invalid key on write SSN Index record
- PF13 - Invalid key on write Alpha Index record
- PF15 - Invalid ID on Patron record
- PF16 - Invalid ID on Patron record
- PF17 - Surname not located on Alpha Index
- PF18 - Invalid key on read Alpha Index record
- PF19 - Invalid ID on Alpha Index record
- PF20 - Invalid key on write Alpha Index record
- PF21 - Invalid key on read Tswork record
- PF22 - Invalid ID on Patron record
- PF23 - Invalid key on write Patron record
- PF24 - Invalid key on read Tswork record
- PF25 - Invalid ID on Patron record

PF26 - Invalid key on write Patron record
PF27 - Invalid key on write Patron record
PF28 - Invalid key on read Delete Patron record
PF29 - Invalid ID on Delete Patron record
PF30 - Invalid key on write Delete Patron record
PF31 - Invalid key on read Delete patron record
PF32 - Invalid ID on Delete patron record
PF33 - Invalid key on write Delete patron record
PF34 - Invalid key on read Delete Patron record
PF35 - Invalid ID on Delete patron record
PF36 - Invalid key on write Delete Patron record
PF38 - Invalid ID on Patron Statistics record
PF39 - Invalid key on write Patron Statistics record
PF40 - Chain address zero for Patron Overflow record
PF41 - Invalid key on read Tswork record
PF42 - Invalid ID on Tswork record
PF43 - Invalid key on write Tswork record
PF43 - Invalid key on read SSN Index record
PF44 - Invalid key on write Patron record
OOPS - Invalid key on read of valid address

2.2.4 Change Patron - Action Code 02 or 02S

The Change Patron program adds, changes, or deletes elements in existing patron records. The program has provisions to prevent the changing of the following data elements from unauthorized terminals:

1. P01 - Social security number
2. P02 - Surname
3. P03 - Given Names
4. P06 - Change Patron Type
5. P07 - Security clearance
6. P08 - Citizenship
7. P13 - Mail symbol
8. P16 - Street address
9. P17 - City
10. P18 - State
11. P19 - Zip code
12. P24 - Need-to-know codes
13. P25 - Comments
14. P26 - Journal routing indicators

The following data elements cannot be changed by any terminal:

1. P12 - Contractor name
2. P20 - Date record added to the file
3. P21 - Date of the last action
4. P22 - Number of items on order
5. P23 - Number of items charged, lost, overdue, on order

When any of the following data fields are changed an entry is made in the Revalidation Record.

1. P07 - Security clearance
2. P08 - Citizenship
3. P13 - Mail symbol
4. P24 - Need-to-know codes

At present, documents charged (P28) and profile of interest (P31) are not available.

The input consists of action code (02), slant bar, social security number, slant bar, surname, slant bar, and sets of changes consisting of element code, data, and slant bar. A transaction containing a change to P07 or P24 has action code 02S and can be processed only in a batch run.

The following capabilities are available:

1. Change the social security number (P01) by replacing the old with the new.

02/987654321/REILY/P01123456789/'# (SSN-987-65-4321

becomes 123-45-6789)

2. Change the surname (P02) by replacement.
02/987654321/REILY/P02NEWSURNAME/'EOB (REILY
becomes NEWSURNAME)
3. Change the given name (P03) by replacement
02/987654321/REILY/P03GIVEN NAMES/'#
4. Change the surname suffix (P04) by replacement or by deleting the
present element.
02/987654321/REILY/PO4JR/'#
5. Change the patron file (P05) by replacement or deletion.
02/987654321/REILY/P05 CAPTAIN/'#
02/987654321/REILY/PO5\$/'#
6. Change the security clearance (P07) by replacement.
02S/987654321/REILY/P07S/'#
7. Change the citizenship (P08) by replacement.
02/987654321/REILY/P0801/'#
8. Change the telephone number (P10) by replacement or deletion.
02/987654321/REILY/P108761240/'#
9. Change the telephone extension (P11) by replacement or deletion.
02/987654321/REILY/P1122/'#
10. Change the mail symbol (P13) by replacement or if P16, P17, and
P18 are added by deletion.
02/987654321/REILY/P13\$ /P16123STREET/P17CITY/P18STATE/'#
11. Change the building number (P14) by replacement or deletion.
02/987654321/REILY/P144723/'#
12. Change the room number (P15) by replacement or deletion.
02/987654321/REILY/P15243/'#

13. Change the street address (P16) by replacement or if a mail symbol (P13) is present, by deletion.

02/987654321/REILY/P16NEW STREET ADDRESS/'#

14. Change the city (P17) by replacement or if P13 is present, by deletion.

15. Change the state (P18) by replacement or deletion if P13 is present.

02/987654321/REILY/P18ALABAMA/'#

16. Change the zip code (P19) by replacement or deletion.

02/987654321/REILY/P1935806/'#

17. Change the need-to-know codes (P24) by addition or deletion. Individual or all codes may be deleted. If individual codes are being deleted, the input is three numerics followed by '\$'. Any number or individual additions or deletions may follow the element code and will be separated by a comma.

02S/987654321/REILY/P24\$/'# -(deletes all)

02S/987654321/REILY/P24\$,01A/'# -(deletes all, adds 01A)

02S/987654321/REILY/P2401A\$,01B/'EOB -(deletes 01A, adds 01B)

18. Change the comments (P25) by replacement or deletion.

02/987654321/REILY/P25NEW COMMENTS/'#

19. Change the journal routing indicators (P26) by addition or deletion of all or individual indicators.

02/987654321/REILY/P26\$/'# (deletes all)

02/987654321/REILY/P26\$,012340 1/'# (deletes all, adds 012340 1).

02/987654321/REILY/P26012350 0 \$,012350 1/'# (deletes 012350 0, adds 012350 1).

USER (DATA) ERROR MESSAGES

1. ELEMENT /PXX IS INVALID. DATA BY-PASSED.
No action required by user.
2. ITEM WAS NOT LOCATED
FOLLOWING DATA OMITTED --- (OMITTED DATA)
No action required by user who was trying to delete a need-to-know code or journal routing indicator.
3. ITEM ALREADY ON RECORD
FOLLOWING DATA OMITTED --- (OMITTED DATA)
No action required by user who was trying to add a need-to-know code or journal routing indicator which was already present.
4. SOCIAL SECURITY NUMBER MAY NOT BE DELETED.
P01\$ BY-PASSED.
No action required by user.
5. SURNAME MAY NOT BE DELETED.
P02 BY-PASSED
No action required by user.
6. GIVEN NAME MAY NOT BE DELETED.
P03\$ BY-PASSED.
No action required by user.
7. SECURITY CODE MAY NOT BE DELETED.
P07\$ BY-PASSED.
No action required by user.
8. CITIZENSHIP MAY NOT BE DELETED.
P08\$ BY-PASSED

9. NO VALID ELEMENT FOUND.

CHANGE PATRON WAS NOT PROCESSED FOR SSN-XXXXXXXXX

No action required by user.

10. ATTEMPTING TO DELETE BOTH MAIL SYMBOL (P13) AND MAILING ADDRESS (P16, P17, AND/OR P18).

THESE DELETE ACTIONS WERE NOT PROCESSED.

Reenter action deleting either mail symbol or mailing address.

11. MAIL SYMBOL (P13) WAS NOT DELETED BECAUSE THE FOLLOWING ITEMS ARE MISSING

STREET - P16

or CITY - P17

or STATE - P18

Reenter action adding the missing item or items.

12. MAILING ADDRESS ELEMENTS (P16, P17, AND/OR P18) WERE NOT DELETED. NO MAIL SYMBOL ON RECORD.

Reenter action adding the mail symbol (P13).

13. ELEMENT PXX NOT PRESENT --- NOT DELETED

No action required by user.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PG01 - Invalid key on read Tswork record
- PG02 - Invalid ID on Tswork record
- PG03 - Invalid Key on read Tswork record
- PG04 - Invalid ID on Tswork record
- PG05 - Invalid key on read Patron record
- PG06 - Invalid ID on Patron record
- PG07 - Invalid key on read SSN Index record
- PG08 - Invalid ID on SSN Index record
- PG09 - Invalid key on write SSN Index record
- PG10 - Invalid key on read SSN Index record
- PG11 - Invalid ID on SSN Index record
- PG12 - Invalid key on write SSN Index record
- PG13 - Invalid key on read SSN Index record
- PG14 - Invalid ID on SSN Index record
- PG15 - Invalid key on write SSN Index record
- PG16 - Invalid key on read SSN Index record
- PG17 - Invalid ID on SSN Index record
- PG18 - Invalid key on SSN Index record
- PG19 - Invalid key on SSN Index record
- PG20 - Invalid key on read Alpha Index record
- PG21 - Invalid ID on Alpha Index record
- PG22 - Invalid key on write Alpha Index record
- PG23 - Invalid key on read Alpha Index record

PG24 - Invalid ID on Alpha Index record
PG25 - Invalid key on write Alpha Index record
PG26 - Invalid key on read Alpha Index record
PG27 - Invalid ID on Alpha Index record
PG28 - Invalid key on write Alpha Index record
PG29 - Invalid key on read Alpha Index record
PG30 - Invalid ID on Alpha Index record
PG31 - Invalid key on write Alpha Index record
PG32 - Invalid key on write Alpha Index record
PG33 - Invalid key on read Revalidation record
PG34 - Invalid ID on Revalidation record
PG35 - Invalid key on read Revalidation record
PG36 - Invalid ID on Revalidation record
PG37 - Invalid key on write Revalidation record
PG38 - Invalid key on write Revalidation record
PG39 - Invalid key on write Revalidation record
PG40 - Invalid key on read Revalidation record
PG41 - Invalid ID on Revalidation record
PG42 - Invalid key on write Revalidation record
PG43 - Invalid key on read Patron record
PG44 - Invalid ID on Patron record
PG45 - Invalid key on write Revalidation record
PG46 - Invalid key on read Revalidation record
PG47 - Invalid ID on Revalidation record
PG48 - Invalid key on write Revalidation record
PG49 - Invalid key on read Patron Statistics record
PG50 - Invalid ID on Patron Statistics record

- PG51 - Invalid key on write Patron Statistics record
- PG52 - Invalid key on write Patron record
- PG53 - Invalid key on read Patron record
- PG55 - Invalid key on write Patron record
- PG56 - Invalid key on write Revalidation record
- PG57 - Invalid key on write Patron record
- PG58 - Invalid key on read Tswork record
- PG59 - Invalid ID on Tswork record
- PG - Tswork record should have an overflow and does not
- REVAL - Invalid key on read/write of unchanged Patron record

2.2.5 Delete Patron - Action Code 03

The Delete Patron program places the patron master record in a deleted status and creates an entry on the Deleted Patron record.

The input is fixed. It consists of action code, slant bar, social security number, slant bar, and surname.

Example: 03/987654321/REILY/'#

The output messages are as follows:

PATRON HAS BEEN DELETED

BOOKS CHARGED --- (#)

DOCUMENTS CHARGED --- (#)

BOOKS OVERDUE --- (#)

ITEMS LOST --- (#)

BOOKS ON ORDER --- (#)

USER (DATA) ERROR MESSAGES

1. PATRON DELETE MUST BE BY SOCIAL SECURITY NUMBER

User action: Reenter transaction in the correct format.

2. PATRON ALREADY DELETED

No action required by user.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PD01 - Invalid key on read Patron record
- PD01 - Invalid ID on Patron record
- PD01 - Invalid key on read Delete Patron record
- PD01 - Invalid ID on Delete Patron record
- PD01 - Invalid key on write Delete Patron record
- PD01 - Invalid key on read Patron Statistics record
- PD01 - Invalid ID on Patron Statistics record
- PD01 - Invalid key on write Patron record
- PD01 - Invalid key on write Patron Statistics record

2.2.6 Verify Patron - Action Code 04

This program displays fixed data from the patron's record and the remaining elements on request. The fixed elements are as follows:

1. P01 - Social security number
2. P02 - Surname
3. P03 - Given names
4. P04 - Surname suffix
5. P05 - Patron title
6. P06 - Patron type
7. P07 - Security clearance code
8. P10 - Telephone number
9. P11 - Telephone extension number
10. P12 - Contractor name
11. P20 - Date patron added to the file
12. P21 - Date of last patron action
13. P13 - Mail symbol
- P14 - Building number
- P15 - Room number

or

- P16 - Street address
- P17 - City
- P18 - State
- P19 - Zip Code
14. - Patron status

The following elements are displayed on request.

1. P08 - Citizenship
2. P16 - Street (only if P13 is available)
3. P17 - City (only if P13 is available)

4. P18 - State (only if P13 is available)
5. P19 - Zip Code (only if P13 is available)
6. P22 - Number of books on order
7. P23 - Number of books charged, lost, overdue
8. P24 - Need-to-know codes
9. P25 - Comments
10. P26 - Journal routing indicators
11. P27 - Books charged
12. P29 - Books overdue
13. P30 - Books lost

The input contains action code, slant bar, social security number or surname, slant bar, and a set of element code, slant bar for each special request.

04/987654321/P08/P25/'# (Standard display, citizenship, comments)

USER (DATA) ERROR MESSAGES

1. ELEMENT CODE --- PXX --- IS DUPLICATE OF ABOVE INFORMATION
No action required by user. The request is ignored.
2. PATRON ADDR NOT CROSS REF TO BOOK --- CALL PROGRAMMER
User should immediately contact the responsible programmer/
analyst. There is a discrepancy between the book and patron
records.
3. ELEMENT CODE --- PXX --- NOT AVAILABLE AT THIS TIME
No user action required. A request was made for P28, documents
charged, or P31, profile of interest.
4. INVALID ELEMENT CODE
(INVALID DATA)
No user action required.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PH01 - Invalid key on read Patron record
- PH01 - Invalid ID on Patron record
- PH01 - Invalid key on read Book Master record
- PH01 - Invalid ID on Book Master record
- PH01 - Invalid key on read Tswork record
- PH01 - Invalid ID on Tswork record
- PH01 - Invalid key on Patron Statistics record
- PH01 - Invalid key on write Patron Statistics record
- PH01 - Invalid ID on Patron Statistics record

2.2.7 Change Contractor - Action Code 05A, 05C, 05D

The Change Contractor program adds, changes, or deletes contractor names and codes in the contractor index.

The input consists of an action code (05A, 05C, or 05D), slant bar, contractor code (4 numerics), slant bar, contractor name (3 to 32 characters), and slant bar.

The following capabilities are available to the user:

1. Add a new contractor to data file.

05A/4350/XEROX/'#

The output message will be:

CONTRACTOR 4350, XEROX HAS BEEN ADDED

2. Delete contractor from data file.

05D/4350/XEROX/'#

The output message will be:

CONTRACTOR 4350, XEROX HAS BEEN DELETED

3. Change contractor name by replacement.

05C/4350/XEROX INC./'#

The output message will be:

CONTRACTOR 4350, XEROX INC. HAS BEEN CHANGED

In the examples given '4350' is the contractor code and 'XEROX' is the contractor name.

USER (DATA) ERROR MESSAGES

1. CONTRACTOR code , name ALREADY ON FILE.

No action required by user.

2. CONTRACTOR code , name CANNOT BE LOCATED.

The contractor code given could not be located on the data file.
The user should check for an input error.

3. INVALID ACTION CODE code .

User should check for an input error.

4. ERROR --- INPUT TOO LONG OR SLANT BAR MISSING.

User should check for transaction length greater than 230
characters or slant bar missing after contractor code.

5. ERROR --- CONTRACTOR CODE INCORRECT LENGTH

User should check for contractor code exceeding 4 digits.

6. ERROR --- CONTRACTOR NAME INCORRECT LENGTH

User should check for contractor name exceeding 32 characters.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- PI01 - Invalid key on read Contractor Index record
- PI02 - Incorrect ID on Contractor Index record
- PI03 - Invalid key on write Contractor Index record

2.3 CIRCULATION SUBSYSTEM

The Circulation Subsystem provides the necessary capabilities for maintaining a current inventory of circulated RSIC books.

2.3.1 Edit Program

This program edits the input of all circulate actions for format errors. Each circulate action has a fixed input format. Disposition action is checked for a valid LC number and copy number.

FORMAT: 28/LC number, 'C', copy number, plus (+) '#

Circulate action is checked for a valid social security number and loan type.

FORMAT: LC number, 'C', copy number, plus(+) (for each copy)
29/SSN/type of loan 'EOB

Return action is checked for a valid LC number and copy number.

FORMAT: 30/LC number, 'C', copy number, plus (+) '#

Recall action is checked for a valid LC number and for either a valid social security number (SSN) or the literal, 'REPROCESS'. The copy number is optional.

FORMAT: 31/LC number/(SSN or 'REPROCESS') '#

or

31/LC number, 'C', copy number, plus (+)/(SSN or
'REPROCESS') '#

Renew action is checked for a valid LC number, copy number, and type of loan.

FORMAT: 32/LC number, 'C', copy number, plus (+)/type of loan '#

Lost action is checked for a valid LC number and copy number. A social security number is optional.

FORMAT: 33/LC number, 'C', copy number, plus (+) '#

or

33/LC number, 'C', copy number, plus (+)/SSN '#

<u>Field Name</u>	<u>Maximum Length</u>	<u>Edit Criteria</u>
LC Number	37	LC number input must have at least one space after Main Class/Sub-division, and Further Subdivision, and Cutter Number.
Copy Number	3	One, two, or three numeric characters.
Loan Type	1	One of the following numeric characters: 1 - regular (6 months) 2 - inter-library 8 - issue slip 9 - long-term (1 year)
Social Security Number	10	9 or 10 numerics. Spaces may be included.
REPROCESS	9	9-character alphabetic literal which may include spaces.

USER (DATA) ERROR MESSAGES

1. INPUT IS TOO LONG

The user has input more than 230 characters. Some spaces should be eliminated and the action reentered.

2. (Message a-r)

THE FOLLOWING INVALID INPUT HAS BEEN OMITTED

(Invalid LC number)

- (a) MAIN CLASS CONTAINS A NUMERIC CHARACTER
- (b) MAIN CLASS TOO LONG
- (c) MAIN CLASS INVALID
- (d) SUBDIVISION NOT PRESENT
- (e) SUBDIVISION TOO LONG
- (f) SUBDIVISION CONTAINS ALPHA CHARACTER
- (g) FURTHER SUBDIVISION IS TOO LONG
- (h) FURTHER SUBDIVISION CONTAINS UNACCEPTABLE CHARACTER
- (i) CUTTER NUMBER DID NOT START WITH ALPHABETIC CHARACTER
- (j) CUTTER NUMBER IS TOO LONG
- (k) CUTTER NUMBER CONTAINS MORE THAN ONE ALPHA CHARACTER
- (l) CUTTER NUMBER DOES NOT CONTAIN NUMERIC
- (m) DATE FIELD HAS ALPHABETIC OTHER THAN 'ND'
- (n) DATE FIELD CONTAINS AN UNACCEPTABLE CHARACTER
- (o) DATE FIELD CONTAINS AN INVALID BLANK
- (p) DATE NOT IN RANGE
- (q) BALANCE OF IDENTIFICATION TOO LONG
- (r) DATE FIELD TOO LONG

The LC number is incorrect. The user must reenter the action.

3. (Message a-b)

THE FOLLOWING INVALID INPUT HAS BEEN OMITTED

(Invalid LC number)

(a) COPY NUMBER IS NOT PRESENT

(b) COPY NUMBER IS TOO LONG

The user must reenter the action with valid copy information.

4. INVALID LOAN TYPE (Invalid data)

THE FOLLOWING INVALID INPUT HAS BEEN OMITTED

(Invalid data)

The user must reenter the action with a valid loan type.

5. NO LOAN TYPE AVAILABLE

The user must reenter the action with a valid loan type.

6. (Message a-c)

THE FOLLOWING INVALID INPUT HAS BEEN OMITTED

(Invalid data)

(a) SOCIAL SECURITY NUMBER CONTAINS INVALID CHARACTER---X

(b) SOCIAL SECURITY NUMBER IS TOO LONG

(c) SOCIAL SECURITY NUMBER IS TOO SHORT

The user must reenter the action with a valid social security number (SSN).

7. THE INPUT SHOULD BE A SOCIAL SECURITY NUMBER OR REPROCESS
INCORRECT INPUT --- PROCESSING ENDED --- CORRECT AND RESUBMIT

The user must reenter the recall action including a 'REPROCESS' or a SSN.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- BA01 - Invalid key on write Tswork record
- BA03 - Invalid action code for the circulation system
- HELP - The input and output subscripts do not agree

sposition - Action Code 28

osition program changes the status from cataloging or
to on shelf, ready for circulation.

opy was ordered for a patron, it is automatically circulated
tron. If a recall action is outstanding for this book, the
utomatically circulated. The circulate action will have a 6
an type.

is action code 28, slant bar, LC number, 'C', copy number,
'#.

28/QA 123 A33 1965-66C14+ '#

s of copy 14 is on shelf.

SPOSITION TRANSACTION

opy was ordered for a patron or is on recall, the following
s displayed.

BEEN CIRCULATED

IR (DATA) ERROR MESSAGES

umber) IS INVALID

ION WAS NOT COMPLETED---CORRECT AND RESUBMIT

copy number 0 or a copy number greater
of copies.

een a recall outstanding but one could not be

RECORD

d for a patron. The user should contact the
er/analyst.

uer) COPY NUMBER (copy number)

n)

Y LOAN

d check the input for the valid LC number and
The user must return the copy. This action is
now.

LOAN

NG ISSUE SLIP

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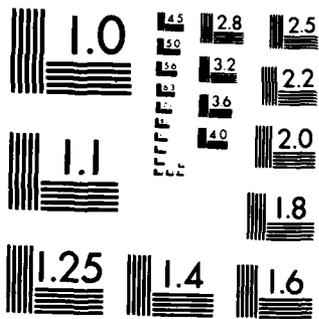
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

(h) SALVAGE

The user must process a found action. The copy status is ready for the disposition action.

(i) INVENTORY ADJUST OUT

Same as h.

(j) TRANSFERRED

Same as h.

(k) BINDERY

The user must process an adjust book action changing the copy status. The copy status is ready for a disposition action.

(l) HAS NOT BEEN CATALOGUED---SEND TO CATALOGING

Same as k.

(m) IS ON ORDER---SEND TO ORDERING AND RECEIVING

The user must process the receive order action and any adjust book action. The copy status is ready for a disposition action.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analayst if one of the following error messages is received.

- BH01 - Invalid key on read or write Book Master record
- BH02 - Invalid ID on Book Master record
- BH03 - Invalid key on read or write Patron record
- BH04 - Invalid ID on Patron record
- BH05 - Invalid key on read or write Recall record
- BH06 - Invalid ID on Recall record
- BH07 - Copy number is not present - check edit.
- BH08 - Copy number is too long - check edit.
- BH09 - Book address was not retrieved
- BH11 - Invalid key on read or write Book Statistics record
- BH12 - Invalid ID on Book Statistics record
- BH13 - Invalid key on read or write Tswork record

2.3.3 Circulate - Action Code 29

The circulate program charges out a book to a patron. The copy must be in 'on shelf' status and the patron must be in active status. Any number of books may be charged out in any transaction.

The input consists of one or more shelf cards, an EOB card, and the circulate action. The shelf cards are found in the books. The format of the shelf card follows:

Column 1: 1

Column 2-50: LC#, 'C', copy#, plus(+), 10 characters of the main entry with the title in the remaining columns.

The EOB card has the following format:

Column 1: space

Column 2: quote (4-8 punch)

Column 3: #

The circulate action is action code 29 followed by a slant bar, 9 or 10 numeric social security number, slant bar, type of loan.

The valid loan types are:

1 - regular (6 months)

2 - inter-library

8 - issue slip

9 - long term (1 year)

EXAMPLE: 1HD 171 H386 1966C3A+HAVENS,RAL PRINCIPLES OF INCO '#
29/987654321/1 '#

The above example will circulate for a period of 6 months the nonexpendable copy 3 of HD 171 H386 1966 to the patron whose social security number is 987-65-4321.

The output will be a circulate card and a message indicating the book was circulated for each shelf card. The format for the circulate card follows:

Column 1: J

Column 2-50: LC#, 'C', copy#, media code, plus (+), 10 characters of the main entry with the title in the remaining columns.

Column 51: patron security clearance

Column 52: type of loan

Column 53: year of loan

Column 54-56: julian date of loan

Column 57-66: patron social security number

Column 67-79: patron name

Column 79-80: patron initials

Example:

JHD 171 H386 1981C3A+HAYENS,RAL PRINCIPLES OF INCOS1120504278483DOE JL

USER (DATA) ERROR MESSAGES

1. PATRON ADDRESS ERROR---CALL PROGRAMMER

The user should contact the responsible programmer/analyst.

2. (LC NUMBER)

(STATUS MESSAGE a-m)

BOOK NOT CIRCULATED

(a) COPY DOES NOT EXIST

A cataloger must change the copy status to 'on shelf' with an adjust book action. The user must process a disposition action. The copy is in 'on shelf' status and can be circulated.

(b) IN CATALOGING

The user must process a disposition action.

(c) REPROCESS

The user must return the book and enter a disposition action.

(d) ON ORDER

The copy must be received and have an adjust book action and a disposition action processed against it.

(e) RECEIVING

The user must process an adjust book and a disposition action.

(f) LOST

The user must return the copy.

(g) LOST---PATRON DELETED

The user must return the copy.

(h) BINDERY

The copy status must be changed to 'C', in cataloging, with an adjust book action. The user must process a disposition action.

(i) SALVAGED

The user must process the found and disposition actions for that copy.

(j) TRANSFERRED---(account number)

The user must process the found and disposition actions for that copy.

(k) INVENTORY ADJUST OUT

The user must process the found and disposition actions for that copy.

(l) COPY ON LOAN

The user must return the book.

(m) REFERENCE

The user must process a disposition action.

3. PATRON REACHING MAX NO OF BOOKS CHARGED

No user action.

4. PATRON HAS REACHED MAX NO OF BOOKS

The user cannot check additional books out to this social security number.

5. (PATRON SURNAME GIVEN NAME)

LOAN TYPE INVALID

TRANSACTION NOT PROCESSED

The user must use loan type 1 (6 months) for a contractor patron.

6. COPY NR---(COPY NR)GREATER THAN COPIES ON FILE

BOOK NOT CIRCULATED

The user should check the copy number in the shelf card. If it is valid number, a copy should be added to the file and a disposition action processed.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- BB01 - Invalid key on read Patron record
- BB02 - Invalid ID on Patron record
- BB03 - Invalid key on read Patron record
- BB04 - Invalid ID on Patron record
- BB05 - Invalid key on read Tswork record
- BB06 - Invalid ID on Tswork record
- BB07 - Invalid key on read Book Master record
- BB08 - Invalid ID on Book Master record
- BB09 - Invalid key on read Book Master record
- BB10 - Invalid ID on Book Master record
- BB11 - Invalid key on write Book Master record
- BB12 - Invalid key on write Book Master record
- BB13A - Invalid key on read Patron record
- BB13 - Invalid key on write Patron record
- BB14 - Invalid key on write Patron record
- BB15A - Invalid key on read Patron record
- BB15 - Invalid key on write Patron record
- BB16 - Patron address was not retrieved
- BB17 - Book Master address was not retrieved
- BB18 - Chain address was not present
- BB19 - Copy number was not in the LC Number
- BB22 - Invalid key on read Tswork record
- BB23 - Invalid ID on Tswork record
- BB24 - Chain address was not available

- BB26 - Invalid key on read Book Statistics record
- BB27 - Invalid ID on Book Statistics record
- BB28 - Invalid key on write Book Statistics record
- BB50 - Invalid key on read Patron record
- BB51 - Invalid ID on Patron record
- BB52 - Invalid key on read Patron Statistics record
- BB53 - Invalid ID on Patron Statistics record
- BB54 - Invalid key on write Patron Statistics record

2.3.4 Return-Action Code 30

This program returns to the Library copies that are on loan, lost, or recalled for reprocessing.

The input is either a circulate card or cards, and an EOB card, example 1, or action code 30, slant bar, LC number, 'C', copy number, plus (+), example 2. The circulate card has the following format:

Column 1: J

Column 2-50: LC#, 'C', copy #, media code, plus (+), 10 character main entry with the remaining columns filled with title information

Column 51: patron security clearance

Column 52: type of loan

Column 53: year of loan

Column 54-56: julian date of loan

Column 57-66: patron social security number

Column 67-78: patron surname

Column 79-80: patron initials

1. Example:

JHD 155H53 1981C3A+HAVENS, RA PRINCIPLES OF SOUNDS112050987654321REILY
VL '#

2. Example: 30/HD 155 H53 1981C3+ '#

Copy 3 of HD 155 H53 1981 charged to V.L. Reily will be returned.

The normal output is a shelf card, and the following message is displayed.

END OF RETURN TRANSACTION

The format of the shelf card is as follows:

Column 1: 1

Column 2-50: LC#, 'C', copy #, media code, plus(+), 10 characters of the main entry with the remaining columns containing title information.

Columns 51-80: spaces

3. Example: 1TK 4500 K94 1981C2A+UNKNOWN TITLE INFORMATION

If the book was lost, the output is a shelf card, and the following message is displayed:

LC NUMBER (LC number) LOST-CHARGED TO (SUFFIX) (SURNAME) END OF RETURN TRANSACTION

If the book was on recall for reprocessing, the output is a shelf card with the words 'REPROCESS' in columns 68-76, and the following message is displayed:

THE BOOK---CALL NUMBER (LC number)---

MUST BE SENT TO CATALOGING TO BE EXAMINED

If the book was on recall for a patron, the output is a circulate card with the recalling patron's security code, social security number, surname, and initials; and the following message is displayed:

BOOK HAS BEEN CIRCULATED

The user must forward the book to the recalling patron.

USER (DATA) ERROR MESSAGES

1. (LC number) HAS INVALID COPY NUMBER (copy number)

RETURN TRANSACTION NOT PROCESSED

The copy number in the input is greater than the total number on the file. The user should check the input. If this is a valid copy number, copies should be added to the file and a disposition action processed against this copy. The copy status is on shelf which is the result of a return action; therefore, it is not necessary to circulate and then return this copy.

2. LC NO (LC number) TRANSFERRED TO ACCNT NO (account number)

RETURN TRANSACTION NOT PROCESSED

The user must process a found and a disposition action.

3. LC (LC number) COPY (copy number) NOT ON (SSN) RECORD

END OF RETURN TRANSACTION

The patron record indicates the book is not charged to the patron. The user should contact the responsible programmer/analyst.

4. PATRON RECORDS TOO LONG-CALL PROGRAMMER

The user should contact the responsible programmer/analyst. The patron record has more than 6249 characters of variable data.

5. THE COPY-RECORD INDICATED THIS PATRON-SOCIAL SECURITY NUMBER (SSN) HAD (TITLE)

BUT THE PATRON RECORD INDICATED OTHERWISE

The user should contact the responsible programmer/analyst. There is a discrepancy between the book record and the patron record.

6. THE BOOK---CALL NUMBER (LC number)---

STATUS IS BOOK RECEIVED

MUST BE SENT TO CATALOGING TO BE EXAMINED

RETURN TRANSACTION NOT PROCESSED

The user should send the book to cataloging. An adjust book action and a disposition action must be processed.

7. THE BOOK---CALL NUMBER (LC number)---

STATUS IS (status a-f)

RETURN TRANSACTION NOT PROCESSED

(a) REFERENCE

The user must process a disposition action.

(b) IN CATALOGING

The user must process a disposition action.

(c) SALVAGE

The user should check the input for validity. The user must process a found action and a disposition action.

(d) INVENTORY ADJUST OUT

Same as c.

(e) IN BINDERY

The user should check the input for validity. The user must process an adjust book action changing the status to cataloging and then process a disposition action.

(f) BLANK COPY

The user must process an adjust book action changing the status to on shelf.

8. THE BOOK---CALL NUMBER (LC number)---

STATUS IS ON SHELF

END OF RETURN TRANSACTION

No user action required. A shelf card will be punched.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- BE01 - Invalid key on read or write Tswork record
- BE02 - Invalid key on read or write Recall record
- BE03 - Invalid input - LC number is missing
- BE04 - Invalid key on read or write Book Master record
- BE05 - Invalid key on read or write Patron record
- BE06 - Invalid key on read or write Patron Statistics record
- BE07 - Invalid ID in Patron Statistics record
- BE09 - No recalls were located on the Recall record
- BE10 - All recalls were not located on the Recall record
- BE11 - Invalid key on read Turn-in record
- BE12 - Invalid ID on Turn-in record
- BE13 - Invalid key on write Turn-in record
- BE16 - Invalid key on read or write Book Statistics record
- BE18 - Invalid ID on Tswork record
- BE19 - Invalid ID in Book Master record
- BE20 - Invalid ID in Patron record
- BE21 - Invalid ID in Recall record
- BE22 - Invalid ID in Book Statistics record
- EDERR - Copy number is not present
- BH01 - Invalid key on read Book Master record

2.3.5 Recall - Action Code 31

The Recall program flags a book as recalled for a patron or for reprocessing. (See the documentation for overdue notices and recall notices for the format of the notices in the RSIC System Documentation.)

Copy one is not recalled for a patron. All copies being recalled must be blank or on loan. The recalling patron must be in an active status.

The input consists of action code 31, slant bar, LC number, slant bar, social security number (SSN) or the literal 'REPROCESS'. Optional input is 'C', copy number, plus (+) following the LC number.

1. Example: 31/QA 123 A123 1981/REPROCESS '#

Flags all copies of QA 123 A123 1981 for reprocessing.

2. Example: 31/QA 123 A123 1981C4+/987654321 '#

Flags copy 4 as recalled for patron 987654321.

The output is the following message:

END OF RECALL TRANSACTION

USER (DATA) ERROR MESSAGES

1. (copy number) IS AN INVALID COPY NUMBER---RESUBMIT

The user has input a copy number greater than the number on the file.

2. THE COPY-(copy number)-OF CALL NUMBER (LC number) IS NOT ON LOAN AND CANNOT BE RECALLED

IT IS ON SHELF---LOCATE BOOK AND SUBMIT A CIRCULATE BOOK TRANSACTION

A copy is on the shelf and the recall for a patron action is terminated. The user must issue the recall action against another copy of the book.

3. SOCIAL SECURITY NUMBER (SSN) HAS BEEN DELETED

RECALL TRANSACTION TERMINATED

The recalling patron is in a deleted status and cannot recall or check out books.

4. (LC number) COPY (copy number) IS ON LOAN TO ANOTHER LIBRARY AND CANNOT BE RECALLED

The user must issue the recall action against another copy of the book.

5. THE COPY-(copy number)-OF CALL NUMBER (LC number) IS NOT ON LOAN AND CANNOT BE RECALLED

IT IS ON SHELF-SEND TO CATALOGING FOR REPROCESS

The user should locate the copy and send to cataloging.

6. NO COPIES ON LOAN

RECALL TRANSACTION TERMINATED

A recall for a patron was issued against a book that had no copies on loan. A copy could be on loan but have a status of recalled for reprocessing and the user would get this message.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- BF01 - Invalid key on read Tswork record
- BF02 - Invalid ID in Tswork record
- BF03 - Invalid key on read or write Book Master record
- BF04 - Invalid ID in Book Master record
- BF07 - Invalid key on read or write Patron record
- BF08 - Invalid ID in Patron record
- BF09 - Invalid ID in Recall record
- BF10 - Invalid key on read or write Recall record
- BF11 - Invalid ID in Book Statistics Record
- BF12 - Invalid key on read or write Book Statistics record
- BF13 - Patron has an invalid status - not active or deleted
- BF14 - Input does not contain SSN or REPROCESS - check the Edit program

2.3.6 Renew - Action Code 32

The renew program allows the patron to keep the book for another loan period. The copy must be on loan or overdue. The patron must be on file in an active status.

The input consists of action code 32, slant bar, LC Number, 'C', copy number, plus (+), slant bar, and type of loan.

Example: 32/HD 171 H386 1981C3+/1'#

Copy 3 of HD 171 H386 1981 will be renewed and will not become overdue for 6 months.

The output will be a circulate card and a message indicating the book was renewed. The format of the circulate card follows:

Column 1: J

Column 2-52: LC#, 'C', copy #, media code, plus (+) 10 characters of the main entry with the title in the remaining columns.

Column 51: patron security clearance

Column 52: type of loan

Column 53: year of loan

Column 54-56: julian date of loan

Column 57-66: patron social security number

Column 67-78: patron initials

JHD 171 H386 1981C3A+HAVENS, RAL PRINCIPLES OF
INCOS11250987654321DOE JL

The output message is as follows:

BOOK HAS BEEN RENEWED

USER (DATA) ERROR MESSAGES

1. BOOK NOT XREF TO PATRON---CALL PROGRAMMER

There is a discrepancy in the file between the book record and the patron record. Call the responsible programmer/analyst.

2. COPY STATUS INDICATES BOOK---(LC NUMBER)

(STATUS MESSAGE a-n)

CAN NOT BE RENEWED

(a) COPY DOES NOT EXIST

A cataloger must change the status of this copy to 'on shelf'. The copy must be circulated to the renewing patron.

(b) IN CATALOGING

In disposition action for the copy must be run. This places the copy 'on shelf'. The copy must be circulated to the renewing patron.

(c) REPROCESS

The user must return the copy which places the copy 'in cataloging' and follow the instructions for a copy in cataloging (message b).

(d) ON ORDER

The user must receive the copy and enter an adjust book action. The copy status is in cataloging. The user follows the instructions for in cataloging (b).

(e) LOST

The user must return the book and circulate it to the renewing patron.

(f) RECEIVING

A cataloger must enter an adjust book action. This places the copy in cataloging. The user follows the instructions for in cataloging (b).

(g) BINDERY

A cataloger must change the status of the copy to in cataloging. The user follows the instructions for in cataloging (b).

(h) SALVAGED

A cataloger must enter a 'found' action. The copy is in cataloging. The user follows the instructions for in cataloging (b).

(i) TRANSFERRED---(ACCOUNT NUMBER)

A cataloger must enter a 'found' action. The user follows the instructions for a copy in cataloging (b).

(j) INVENTORY ADJUST OUT

A cataloger must enter a 'found' action. The user follows the instructions for a copy in cataloging, (b).

(k) LOST---PATRON DELETED

The user must return the book and circulate it to the patron.

(l) ON SHELF

The user must circulate the book.

(m) REFERENCE

The user must enter a disposition action and circulate the book.

(n) COPY ON LOAN

The copy is on an issue slip loan (type 8). Type 8 loans are not renewed.

3. COPY NR---(copy number)GREATER THAN COPIES ON FILE

BOOK NOT RENEWED

The user should check the copy number in the input. If this is a valid condition, a copy must be added to the file and a disposition action followed by a circulate action must be processed.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- BB01 - Invalid key on read Patron record
- BB02 - Invalid ID on Patron record
- BB19 - Library of Congress (LC) number too large
- BB20 - Valid copy number was not found in Book Master record
- BB29 - Invalid key on read Book Master record
- BB30 - Invalid ID on Book Master record
- BB30B - Invalid key on read valid address
- BB31 - Invalid key on write Book Master record
- BB32 - Invalid key on read Book Master record
- BB33 - Invalid ID on Book Master record
- BB36 - Invalid key on read Patron record
- BB37 - Invalid ID on Patron record
- BB38 - Invalid key on write Patron record
- BB39 - Invalid key on read Book Statistics record
- BB40 - Invalid ID on Book Statistics record
- BB41 - Invalid key on write Book Statistics record
- BB46 - Invalid key on write Patron record
- BB52 - Invalid key on read Patron Statistics record
- BB53 - Invalid ID on Patron Statistics record
- BB54 - Invalid key on write Patron Statistics record

2.3.7 Lost - Action Code 33

The lost program flags a copy lost in the Book Master record and the Patron record. The copy status must be on loan or recalled for reprocessing.

The mandatory input is action code (33), slant bar, LC number, 'C', copy number, plus (+).

Example: 33/QA 53 J123 1979C2+ '#

Copy 2 of QA 53 J123 1979 is flagged as lost.

The optional input is a slant bar, 9 or 10 numeric patron social security number following the mandatory input. The optional social security number must match that of the patron charged with the book. Otherwise, the action is terminated.

Example: 33/QA 53 J123 1979C2+/987654321 '#

The output is the following message:

END OF LOST BOOK TRANSACTION

USER (DATA) ERROR MESSAGES

1. LC NO (LC number) INVALID INPUT --- TOO LONG

LOST TRANSACTION TERMINATED

The user must enter the action with the LC number and copy information having fewer than 38 valid characters.

2. LC NO (LC number) INVALID COPY NUMBER

The copy number is not numeric. The user must reenter the transaction.

3. LC NO (LC number) EXCEEDS TOTAL NO OF COPIES

LOST TRANSACTION TERMINATED

The user should check the input for the valid copy number. If the copy number is valid, a copy must be added. A disposition and a circulate action must be processed. The conditions are set for the lost book action.

4. THIS BOOK CHARGED TO SOCIAL SECURITY NUMBER (SSN)

The user has included a social security number (SSN) with the mandatory input. The SSN does not agree with that of the patron charged with the book.

5. LC NUMBER (LC number) ON RECALL FOR SSN (SSN)

A recall action is outstanding for the copy just flagged as lost. The recall action should be reentered by the user.

6. RECALL ENTRY NOT FOUND-PROCESSING CONTINUES-LOST ACTION

The user should immediately notify the responsible programmer/analyst.

7. RECALL ID BAD---CALL PROGRAMMER---PROCESSING CONTINUES

The user should immediately notify the responsible programmer/analyst.

8. LC NO (LC number) STATUS (status a-m)

LOST TRANSACTION TERMINATED

(a) IN CATALOGING

The user must enter a disposition and circulate action before the lost action.

(b) A BOOK LOAN REQUIRING ISSUE SLIP

A copy on a type 8 loan cannot be lost.

(c) LOST

No action required by user.

(d) LOST (PATRON DELETED)

No action required by user.

(e) ON SHELF

The user must circulate the book.

(f) SALVAGE

The user must process a found, a disposition, and a circulate action.

(g) INVENTORY ADJUST OUT

Same as (f).

(h) TRANSFERRED

Same as (f).

(i) REFERENCE

The user must process a disposition and circulate action.

(j) IN BINDERY

The user must process an adjust book action changing the copy status to in cataloging. This must be followed by a disposition and a circulate action.

(k) BLANK COPY

Same as (j).

(l) BOOK RECEIVED

The user must process any adjust book action followed by a disposition and a circulate action.

(m) ON ORDER

The user must process a receive order action followed by the actions for (l).

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- BG01 - Invalid ID on Book Master record
- BG02 - Invalid key on read or write Book Master record
- BG03 - Invalid key on read Tswork record
- BG04 - Invalid ID on Tswork record
- BG05 - Invalid ID on Patron record
- BG06 - Invalid key on read or write Patron record
- BG07 - Invalid status type in copy record
- BG08 - Patron chain address is not available
- BG09 - Discrepancy between Book and Patron records
- BG10 - Invalid ID on Book Statistics record
- BG11 - Invalid key on read or write Book Statistics record
- BG12 - Invalid key on read or write Recall record
- BG15 - Input social security number is too long - Edit program error
- CPCIR - Total number of circulated copies is zero

2.4 BOOK ORDERING AND RECEIVING SUBSYSTEM

The Book Ordering and Receiving Subsystem provides the necessary capabilities for ordering and receiving books, and maintaining the vendor files.

2.4.1 Edit Program

All Ordering and Receiving and Vendor transactions are passed to the edit programs for editing. Diagnostic messages from the edits have been included in the documentation for the applicable action codes.

See Figure 1-1 for allowable/mandatory element codes for this program.

System Error Messages

Call the responsible programmer/analyst if one of the following error messages is received.

- 9FVH1 - Invalid key on read Tswork
- 9VFH2 - Invalid ID on Tswork
- 9EV01 - Invalid key on write Vendor work record
- 9EV02 - Invalid ID on read prior to write
- 90P01 - Invalid key on write Order Processor record
- ACTCD - Invalid action code at OP5200.

INVALID ACTION CODE - BOR-EDIT

2.4.2 Order Processor

Prior to daily processing, process the following (2) transactions.

- 9PO (print orders) see page 2-138
- 9CD (change orders) see page 2-156

The following action codes are processed by this program.

- 9NB - New Blanket
- 9NR - New Requisition
- 9NA - New Account
- 9NC - New Coupon and Deposit Account
- 9ND - New Drop Shipment (see page 2-134 receive order)

Any ordered item which has not been printed may be added to. (Example: A Change Order action (9CO) may be entered against an order item currently on file before a print transaction (9PO) is processed.)

Action code must be the first three characters of the input followed by a slant bar (/). Each input element will consist of a three-character element code followed by data and terminated with a slant bar.

Example:

```
9NB/B02TITLE/B06BIB-PARA/B26001/B31EA'#  
9NR/V0103/B02TITLE/B06BIB-PARA/B26001/B275.65/B31EA'#  
9NA/V0103/B02TITLE/B06BIB-PARA/B26001/B275.65/B31EA'#  
9NC/V0103/B02TITLE/B06BIB-PARA/B26001/B275.65/B31EA'#  
9ND/V0103/B02TITLE/B06BIB-PARA/B26001/B275.65/B29001/B31EA/B45A'#
```

Element code B99 may be used to place an item on order to a vendor and flag it so that it will not be printed by the next Print Order (9PO) action for that vendor.

Element code B30 (Book Order Notes) is a note to the vendor and is printed on the order.

Element code B32 (Messages) is for library use and is printed on the Outstanding Order List and when received.

For 9ND and 9NA, B27 (unit price) is total price of order (not unit price).

The message 'ORDER PROCESSED' indicates that the action has been processed correctly.

Element Codes	Action Codes		9NB	9NR	9NA	9NC	9ND	*	Max Digits	Allowable Values
	Element Name	Code								
B02	Title	M	M	M	M	M	M	X	999	
B03	Author	O	O	O	O	O	O	X	999	
B06	Bib-Para.	M	M	M	M	M	M	X	999	
P01	Patron SSN	O	O	O	O	O	O	9	10	Multiple Entries Allowed
V01	Vendor Code	N	M	M	M	M	M	9	3	For 9NB Action Program Assigns Vendor Coc 01
B26	Q'ty Ordered	M	M	M	M	M	M	9	3	
B27	Unit Price	O	M	M	M	M	M	9	6	Must be Decimal
B30	Book Order Notes	O	O	O	O	O	O	X	999	
B31	Unit of Issue	M	M	M	M	M	M	X	3	Lot, Set, Ea, Vol
B32	Messages	O	O	O	O	O	O	X	999	
B36	Corp. Author	O	O	O	O	O	O	X	999	
B37	Corp. Address	O	O	O	O	O	O	X	999	
B39	Contract Number	O	O	O	O	O	O	X	999	
B40	Sub-Contract	O	O	O	O	O	O	X	999	
B41	Project Number	O	O	O	O	O	O	X	999	
B42	Grant Number	O	O	O	O	O	O	X	999	
B43	Report Number	O	O	O	C	O	O	X	999	
B28	Q'ty Received	N	N	N	N	N	M	9	3	
B45	Expendability	N	N	N	N	N	M	X	1	A thru I, See Figure 1-2
B99	Print Suppress	N	N	N	N	N	N	-	0	

M - Mandatory
O - Optional
N - Not Allowed

* - Field Type
X - Alphanumeric
9 - Numeric

USER (DATA) ERROR MESSAGES

Messages 1 through 9 are displayed as ERR-MSG in the following message.

ELEMENT (CODE) - (ERR-MSG)

1. INVALID - CHAR 2, 3 MUST BE NUMERIC
Either character 2 or 3 of an element code is not numeric.
2. INVALID CHARACTER NAME-EDIT
Either title or author has an invalid character.
3. INVALID CHARACTER NUM-EDIT
P01, V01, B26, B27, or B28 is not numeric.
4. IMPROPERLY PLACED DECIMAL
P01, V01, B26, B27, or B28 contains an improperly placed decimal point.
5. INVALID - CHAR MUST BE B, P, V
See Figure 1 for valid element codes.
6. MAXIMUM OF 3 CHARS MAY BE KEYED-IN
More than three characters input on B31 not allowed.
7. INVALID - ONLY VALID CHARS ARE L, O, T, S, A, V
or
MUST BE LOT, SET, EA OR VOL
8. INVALID - ONLY VALID CHARS ARE A THRU I
Expendability/media code must be alphabetic character in range A through I. See Figure 1-2.
9. MAXIMUM DIGITS EXCEEDED
or
MINIMUM DIGITS NOT KEYED-IN
P01 must be 9 or 10 digits; V01, B26, and B28 must be 1, 2, 3 digits. These messages indicate that either too many or too few characters have been input for one of these elements.

10. (ELEMENT CODE) IS INVALID ELEMENT CODE FOR ACTION (ACTION CODE)
11. ZERO QUANTITY ORDERED INPUT
Quantity ordered (B26) must not be zero.
12. MORE THAN 878 CHARACTERS INPUT
Present program limitation is 878 characters maximum input. Either reinput by omitting some optional elements or contact responsible programmer/analyst for program modification.
13. MORE THAN 10 PATRONS FOR THIS ITEM
Program limitation of 10 copies per item ordered for patrons.
14. B37 PRESENT WITHOUT B36
Cannot have Corporate Address (B37) without Corporate Author (B36).
15. ORDER PRICE DOES NOT AGREE WITH TX PRICE
or
ORDER UNIT OF ISSUE DOES NOT AGREE WITH TX INPUT
16. ELEMENT B28 - QTY RECEIVED SHOULD NOT HAVE BEEN ENTERED
Applies only to nondrop shipments.
17. VENDOR CODE INPUT > 351
Vendor code cannot be greater than 351.
18. VENDOR HAS NOT BEEN ADDED TO FILE OR HAS BEEN DELETED
Vendor code input is less than 352 but there is no vendor on file corresponding to code.
19. VENDOR IN DELETED STATUS
Vendor corresponding to input code is in deleted status.

20. TX ORDER TYPE DOES NOT AGREE WITH VENDOR TABLE

Input order type (third character of action code) does not agree with vendor type in vendor record.

21. SOCIAL SECURITY NUMBER NOT ON FILE---PROCESSING TERMINATED

22. PLEASE EXAMINE ALL INDEXES, ORDER DATA, AND COPY DATA FOR ERRORS

ORDER NOT PROCESSED

This message always comes out in conjunction with some system error and indicates that some updating may have already been done at the time the error occurred. By displaying both 9DI and 9DN and looking at copy data and order data, you should be able to determine whether any updating has occurred.

Example:

9DI/order no./item no./OAL/ALL/CAL/ALL'#

9DN/temporary LC no. (zz)/OAL/ALL/CAL/ALL'#

The following messages are for operator information only
Processing will continue without the element in error.

23. ELEMENT V01 - VENDOR CODE SHOULD NOT HAVE BEEN ENTERED

Applies to 9NB. Vendor code is not needed on Blanket orders because vendor 1 is always the Blanket vendor.

24. ELEMENT B45 - EXPENDABILITY CODE SHOULD NOT HAVE BEEN ENTERED

Applies only to nondrop shipments. B45 should be input for 9ND only.

25. THIS ITEM CAUSES AUTH-DAILY-BAL TO BE EXCEEDED _____
PROCESSING TERMINATED.

User Action: Process a 9PO (Print order) transaction.
Process a 9CD (Charge order) transaction.

These actions will reinitialize the daily vendor charge account balance to zero.

26. TOTAL PRICE EXCEEDS 6 MONTHS BALANCE _____ ORDER PROCESSED.

The following messages indicate that some mandatory element has been omitted or input incorrectly. The transaction must be re-entered.

27. ELEMENT B02 - TITLE MISSING OR INVALID
28. ELEMENT B06 - BIB-PARAGRAPH MISSING OR INVALID
29. ELEMENT V01 - VENDOR CODE MISSING OR INVALID
30. ELEMENT B26 - QTY ON ORDER MISSING OR INVALID
31. ELEMENT B27 - UNIT PRICE MISSING OR INVALID
32. ELEMENT B45 - EXPENDABILITY CODE MISSING OR INVALID
33. ELEMENT B31 - UNIT OF ISSUE MISSING OR INVALID
34. ELEMENT B28 - QTY RECEIVED MISSING OR INVALID

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 90001 - Invalid key on read
- 90002 - Invalid ID
- 90004 - Invalid action code
- 90010 - Invalid key on write
- 90011 - No transaction data to be merged to BMR
- 90014 - More than 10 segments on BMR
- 90015 - More than 20 addresses retrieved
- 90018 - Bad vendor number on file

2.4.3 Retrieval and Display

The following action codes are processed by this program:

- 9DN - Retrieve and Display by LC Number
- 9DI - Retrieve and Display by Order Number and Item Number
- 9DO - Retrieve and Display by Order Number

All Retrieve and Display (R&D) actions automatically display LC Number and Title. In addition, any combination of the following elements may be displayed.

Copy Elements

- P01 - Patron social security number
- P02 - Patron surname
- P03 - Patron given name
- P13 - Patron mailing symbol
- B18 - Loan date
- B19 - Copy status
- B22 - Recall date
- ALL - All copy elements displayed

Order Elements

- B20 - Order type
- B23 - Order number
- B24 - Item number
- B25 - Vendor code
- B26 - Quantity ordered
- B27 - Unit Price
- B28 - Quantity received
- B30 - Order notes
- B31 - Unit or issue
- B32 - Order Messages

B44 - Order date

ALL - All order elements displayed

If copy elements are to be displayed, the copy number must be entered (CNN where 'C' indicates copy and 'NN' indicates the number) to specify which copy is to be displayed. Elements of all copies may be requested by entering CAL. In addition to indicating which copy is wanted, one or more of the element codes from the list of copy elements must be entered.

If order elements are to be displayed, the 7-digit order number must be entered (ONNNNNNN where 'O' indicates order and 'NNNNNNN' is the order number) followed by a slant bar (/) then item number. Elements of all orders placed against the BMR may be displayed by entering OAL. When OAL is entered, item number is not required. In addition to indicating which order is wanted, one or more of the element codes from the list of order elements must be entered.

Input Examples

1. 9DN/LC NUMBER/CNN/P01/B18/B22/ONNNNNNN/ITEM NUMBER/B20'#

Display specified elements of copy NN, and specified elements of specified order number/item number.

2. 9DN LC NUMBER/CAL/P01/P02/OAL/B44'#

Display P01 and P02 for all copies, and B44 for all orders on BMR.

3. 9DN LC NUMBER/CAL/ALL/OAL/B20/B31/B44'#

Display all elements for all copies, and B20, B31, B44 for all orders.

4. 9DI/Order nbr/item nbr/CNN/ALL/OAL/B31'#

Display all elements for copy NN and B31 for all orders.

5. 9DI/Order nbr/item nbr/CAL/P01/B22/B20/B44'#

Display P01 and B22 for all copies and B20 and B44 for requested order number/item number.

6. 9DO/ORDER nbr/CAL/P01/P02/item nbr/B20/B44'#

Display P01 and P02 for all copies and B20 and B44 for specified order number/item number.

Note that order number need not be repeated for 9DO action.

7. 9DO/Order nbr/CAL/P01/P02/item nbr/B20/B44' #

Display all elements for all copies and all elements for all items of specified order.

USER (DATA) ERROR MESSAGES

The following errors terminate processing. Correct the errors and resubmit.

1. INVALID CHARACTER NUM-EDIT

Nonnumeric character in item number.

2. The following messages all pertain to LC Number.

LC-CLASS MUST BE ALPHABETIC

LC-DIVISION MUST BE SPACE OR ALPHABETIC

THERE MUST BE A SPACE AFTER LC-DIVISION

SPACE BEFORE LC-SUBDIV MUST BE 1ST SPACE

LC-SUBDIVISION MUST BE NUMERIC

LC-SUBDIVISION MUST NOT EXCEED 4 CHARS

DECIMAL POINT MUST SEPARATE LC-SUBDIVISIONS 1 AND 2

LC-FURTHER-SUBDIV NUMERIC OR ALPHABETIC AFTER DECIMAL POINT

LC-FURTHER-SUBDIV MUST NOT EXCEED 7 NUMERICS

FIRST CHAR OF LC-CUTTER-NO MUST BE ALPHABETIC

CHARS 2, 3, AND 4 OF LC-CUTTER-NO MUST BE NUMERIC

LC-CUTTER-NO MUST NOT EXCEED 3 NUMERICS

SPACE AFTER LC-CUTTER-NO MUST BE 3RD SPACE

IF LC-DATE NOT NUMERIC, THEN ND MUST BE ENTERED

LC-DATE MUST BE FOLLOWED BY A SPACE OR A /

IF LC-DATE NOT ND, THEN IT MUST BE FORMAT 9999-99

DASH MUST BE 5TH CHAR WHEN LC-DATE IS NUMERIC

LC-DATE CANNOT EXCEED 6 NUMERIC CHARACTERS

LC-DATE MUST NOT BE LESS THAN 1600

LC-DATE MUST BE PRECEDED BY A SPACE

LC-BAL-ID MUST NOT EXCEED 23 CHARS

3. ORDER NUMBER MUST NOT EXCEED 7 CHARS

Order number must be 7 characters or less. It must match the data file.

4. ITEM-NUMBER MUST NOT EXCEED 4 NUMERIC CHARS

5. The following messages indicate that the retrieval key entered was not found on the appropriate index.

SEARCHED LC INDEX RECORD LC NUMBER NOT ON FILE

SEARCHED ORDER INDEX RECORD ORDER NUMBER NOT FOUND

SEARCHED ORDER INDEX RECORD ORDER-ITEM NBR NOT FOUND

The following errors do not terminate processing. The erroneous input is bypassed and processing continues.

6. INVALID CHAR AFTER / MUST BE P B C A O OR NUMERIC

7. INVALID ELEMENT-CODE - CHARS 2, 3 MUST BE NUMERIC

8. (ELEMENT CODE) IS INVALID ELEMENT CODE FOR ACTION (ACTION CODE)

Element code entered not allowed in this program. See list of valid copy and order elements for R&D actions.

9. INVALID-COPY-NBR MUST BE NUMERIC OR 'AL'

INVALID COPY-NBR - 2ND CHAR MUST BE 'L' WHEN 1ST CHAR IS 'A'

INVALID COPY-NBR - 2ND CHAR MUST BE NUMERIC WHEN 1ST CHAR IS NUMERIC

When specifying copy to be displayed, only CAL or CNN (NN-numeric) is allowed.

10. INVALID ALL - CHARS 2, 3, MUST BE 'L'

If first character following slant bar (/) is 'A' then second and third characters must be 'L'.

11. INCOMPLETE COPY-DATA OR ORDER-DATA PRECEDING ALL

Either copy number (CAL or CNN) or order number (OAL or ONNNNNNN) is correct.

12. INVALID ORDER-NBR - 2ND CHAR MUST BE 'L' WHEN 1ST CHAR IS 'A'

Only valid input for order number is OAL or ONNNNNNN. If second character is 'A' then third character must be 'L'.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 9D001 - Bad Action Code
- 9D002 - Invalid key on read LC Index
- 9D003 - Invalid ID on read LC Index
- 9D004 - Invalid key on read Author Index
- 9D005 - Invalid ID on Author Index
- 9D006 - Invalid key on write saved addresses exceeding 10
- 9D009 - Invalid key on read (@KEY-ROUTE prior to write)
- 9D010 - Invalid key on read Title Index (primary)
- 9D011 - Invalid ID on Title Index (primary)
- 9D012 - Invalid key on read Title Index (secondary)
- 9D013 - Invalid ID on Title Index (secondary)
- 9D014 - Invalid key on read Order Index
- 9D015 - Invalid ID on Order Index
- 9D022 - Invalid key on read BMR
- 9D023 - Invalid ID on BMR
- 9D024 - Invalid key on read BMR
- 9D025 - Invalid ID on BMR
- 9D026 - Invalid key on read Patron
- 9D027 - Invalid ID on Patron
- 9D028 - Invalid key on read Work overflow
- 9D029 - Invalid ID on Work overflow
- 9D030 - Invalid key on write OK-WRITE-RECORD
- 9D031 - Invalid key on read Work
- 9D032 - Invalid ID on Work

SEARCHED TITLE TABLE TITLE KEYED IN TOO GREAT

2.4.4 Erase or Cancel Order

Action codes for this program are:

9EO - Erase Order

9CA - Cancel Order

The input format is:

9EO/ORDER NO./ITEM NO./SEQ NO.'#

or

9EO/ORDER NO./ITEM NO./SEQ NO. S'#

(This option is used to adjust ordered counts in Statistics records in addition to erase order functions.)

Example: 9EO/0010574/0290/0015

or

9CA/ORDER NO./ITEM NO./SEQ NO.'#

where sequence number is a 3-digit numeric.

If a copy being cancelled was ordered for a patron, a cancellation notice to be sent to the patron is printed.

Upon completion of the transaction the following message is printed:

THE FOLLOWING ITEM HAS BEEN ERASED (CANCELLED)

ORDER NUMBER-NNNNNNN ITEM-NNNN

USER (DATA) ERROR MESSAGES

1. SEQUENCE NUMBER NOT NUMERIC

Sequence number must be three numerics.

2. INPUT SEQUENCE NUMBER = 0

Sequence number must be greater than zero.

3. NOT USED

4. RSIC FILE ERROR----HALT PROCESSING

This message comes out in conjunction with some system errors. It means that some updating may have been done before the system error occurred. Call the programmer.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 9E001 - Invalid vendor code on BMR (> 351)
- 9E002 - Vendor code at address X is not correct
- 9E003 - BMR to be deleted not on LC Index
- 9E004 - Order data on BMR does not agree with order index
- 9E005 - Invalid key (read)
- 9E006 - Invalid ID
- 9E007 - Invalid key (write)
- 9E008 - More than 20 segments for patron record
- 9E009 - More than 20 copies ordered for patron being erased
(or cancelled)
- 9E010 - Copy record indicates that on order for patron, patron
record does not agree

2.4.5 Receive Order

Action codes for this program are:

9RO - Receive ordered copies

9RU - Receive unordered copies

In addition, the program will be executed automatically for 9ND (new drop shipment) actions.

Action code 9RO is used to receive copies ordered previously. The input format and mandatory elements for 9RO are:

9RO/ORDER NO./ITEM NO./SEQ NBR/TOTAL PRICE/QUANTITY RECD/MEDIA CODE'#

- seq nbr - 3-digit numeric designating which order on a BMR is being received. (That is, if there are two orders outstanding for a BMR and the copies being received are for the second order then sequence number is 002.)
- total price - must be 6-digit numeric and the decimal point must be entered. (This is total price of all copies received.)
- quantity recd - 3-digit numeric indicating number of copies received.
- media code - 1-character alphabetic 'A' through 'I'.

Action code 9RU only updates the Book Statistics receiving fields.

The input format and mandatory elements for 9RU are:

9RU/ORDER NO./ITEM NO./QUANTITY RECEIVED'#

where quantity received is a 3-digit numeric.

Upon completion of the transaction, the following output is printed at the terminal:

for 9RO, and 9ND.

LC NUMBER

ORDER NUMBER

QUANTITY RECEIVED

UNIT OF ISSUE

RECEIVE DATE

BOOK ORDER MESSAGES

COPY NUMBER XXX REQUESTED FOR PATRON

(if the copy was ordered for a patron)

for 9RU

9RU TRANSACTION HAS BEEN COMPLETED

RECEIVE DATE

NOTE: 9RO ACTION

The program computes the Unit Price.

$UNIT\ PRICE = TOTAL\ PRICE / QUANTITY\ RECEIVED$

The unit price is stored in the appropriate order data element and the latest unit price is updated on the Book Master record.

USER (DATA) ERROR MESSAGES

1. SEQUENCE NUMBER NOT NUMERIC
Sequence number must be three numeric digits.
2. NO / AFTER SEQUENCE NUMBER
3. INPUT PRICE NOT NUMERIC
Price must be six numeric digits.
4. NO DECIMAL POINT IN PRICE
Price must contain decimal point (for example, 9999.99)
5. NO / AFTER PRICE
6. QUANTITY RECEIVED NOT NUMERIC
Quantity received must be three numeric digits.
7. NO / AFTER QUANTITY RECEIVED
8. INVALID MEDIA CODE
Media code must be alphabetic A through I.
9. SEQUENCE RECEIVED = 0
Sequence number must be greater than zero.
10. QUANTITY RECEIVED = 0
Quantity received must be greater than zero.
11. SEQUENCE NUMBER KEYED IN GREATER THAN NUMBER OF ORDERS
Check display to verify number of items ordered on this book and reinput with correct sequence number.
12. TOTAL QUANTITY RECEIVED IS GREATER THAN QUANTITY ON ORDER
Check input against display to be sure that input quantity received is not greater than difference between quantity ordered and quantity already received.
13. NOT USED.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

VENRD - Invalid key read vendor record
VENID - Invalid ID vendor record
BSTRD - Invalid key read book stat record
BSTID - Invalid ID book stat record
BMRRD - Invalid key read BMR (primary)
BMRID - Invalid ID BMR (primary)
BMORD - Invalid key read BMR (overflow)
BMOID - Invalid ID BMR (overflow)
BSTWR - Invalid key write book stat record
BMRWR - Invalid key write BMR (primary)
BMOWR - Invalid key write BMR (overflow)
VENWR - Invalid key write vendor record
RFLRD - Invalid key read prior to write
IMPROPER VENDOR CODE FOUND IN ORDER DATA ON BMR

2.4.6 Print Orders

Action 9PO prints all unprinted orders for a vendor (or vendors) which have the same order date as is in the vendor record.

The capability exists to either print orders for all vendors or for 1 to 10 specified vendors. The input formats are:

9PO/'# for all vendors

9PO/VVV/XXX/'# for 1 to 10 vendors where VVV, XXX, etc., are the specific vendor codes

NOTE: This transaction must be terminated by a slant bar (/).

This action, printing all vendors, should be used very judiciously because of the time required when there are several vendors on file and when the order file is large.

The ability to print orders is available in the batch mode. The only requirement is that after the last 9PO transaction in the data deck a 9PB/'# transaction must be included.

USER (DATA) ERROR MESSAGES

1. MAXIMUM OF 10 VENDOR CODES MAY BE KEYED-IN ALL OVER 10 IGNORED

More than 10 vendor codes were entered when selecting specific vendors. All over 10 will be ignored and processing will continue on the first 10.

2. VENDOR-CODE MUST NOT EXCEED 3 NUMERIC DIGITS

or

VENDOR-CODE MUST BE NUMERIC

Specified vendor code is either more than 3 digits or is not numeric.

3. MORE THAN 230 CHARACTERS INPUT

9PO action cannot have this many characters. Reenter action.

4. VENDOR CODE KEYED IN > 351

Vendor code must be 3 digits and must be less than 352.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 9P002 - Invalid key (read)
- 9P003 - Invalid ID
- 9P006 - Invalid key (write)

2.4.7 List Outstanding Orders

The purpose of this program is to print a notice to a vendor (or all vendors), listing all items ordered prior to a specified date.

The LIST OUTSTANDING ORDERS program has an option to print the comments when listing the outstanding orders.

The input formats are:

9LO/M/NNN/-----.

This entry will list the comments.

9LO/NNN/-----.

This entry will not list the comments.

The input format is:

9LO/NNN/DDMMYY/NN₁/NN₂/NN₃/NN₄/NN₅/'#

NNN - Three-digit numeric. If all vendors are to be printed this should be 000; otherwise it is the vendor code of the vendor being printed.

DDMMYY - Date to be used as the cut-off point in the list. DD is two numeric digits for day of month. MM same for month of year. YY same for last two digits of year.

NN₁, NN₂, etc. - Two-digit numerics (01 through 99) used to specify message number(s) to be printed on list. Maximum number of messages that can be printed is five. This entry is optional and at the present time there are only two valid numbers:

75 - PLEASE RUSH

99 - REQUEST POSSIBLE REFUND BE MADE BY COUPONS

Additions may be made to this list by contacting programmer/analyst.

USER (DATA) ERROR MESSAGES

1. NO / AFTER VENDOR CODE
2. VENDOR CODE NOT NUMERIC
3. INPUT DATE NOT NUMERIC
4. NO / AFTER DATE
5. INPUT DATE = Ø
6. MESSAGE NBR NOT NUMERIC OR NO / AFTER MSG NBR
7. INPUT MESSAGE NUMBER = Ø
8. VENDOR CODE KEYED IN GREATER THAN 351

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 9L002 - Bad ID on vendor work record
- 9L003 - Invalid key read vendor record
- 9L004 - Invalid ID vendor record
- 9L006 - Invalid key read order index
- 9L007 - Invalid ID order index
- 9L010 - Invalid key read BMR
- 9L011 - Invalid ID

2.4.8 Close-Up Order Index

This program should be run every week to close up gaps in the order index and facilitate processing of all programs accessing the order index. The input is simply:

COI/'#

There are no user error diagnostics from this program. The only system errors are 9COI1 (invalid key) and 9COI2 (invalid ID) on reading the order index record. The responsible programmer/analyst should be called if either of these is encountered. When the program completes this action the following message will be displayed.

"Order indexes have been closed up"

2.4.9 Vendor Maintenance

Action codes processed by this program are:

- 9AV - Add a vendor to the file
- 9CV - Change data on a vendor record
- 9DV - Display vendor
- 9EV - Erase vendor
- 9CD - Change date
- 9DD - Display date

The first vendor added to the file when it is created initially must be a blanket vendor (using element V41B). After the blanket vendor, codes are assigned to vendors as they are added to the file. The next vendor after the blanket vendor is vendor 2, then vendor 3, etc., until a maximum of 351 vendors is on file.

Valid element codes and edit criteria are as follows:

<u>Element Code</u>	<u>Description</u>	<u>Edit Requirements</u>
V01	Vendor Code	Up to 3 numeric digits. Internally generated by 9AV action.
V02	Vendor Names	Up to 60 alphanumeric characters. All characters after 60 will be dropped. Spaces may be entered. Consecutive spaces will be reduced to one space automatically.
V03	Vendor Address	Same as V02.
V04	Vendor Dollars Authorized per 6 Months Total	Up to 8 numeric digits where last two digits are cents. If no decimal point is keyed in, only 5 numeric digits can be entered. The digits can be preceded by \$ and/or -, in either order. Commas may also be entered.
V05	Vendor Dollars Authorized per 6 Months Balance	Same as V04.

<u>Element Code</u>	<u>Description</u>
V06	Vendor Dollars Authorized per Day Total
V07	Vendor Dollars Authorized per Day Balance
V08	Vendor Total Titles MTD
V09	Vendor Total Titles YTD
V10	Vendor RSIC Copies MTD
V11	Vendor RSIC Copies YTD
V12	Vendor Items Ordered Patron Copies MTD
V13	Vendor Items Ordered Patron Copies YTD
V14	Vendor Items Ordered Total Copies MTD
V15	Vendor Items Ordered Total Copies YTD
V16	Vendor Items Ordered Total Dollars Amount MTD
V17	Vendor Items Ordered Total Dollars Amount YTD
V18	Vendor Items Received Expendable MTD
V19	Vendor Items Received Expendable YTD
V20	Vendor Items Received Nonexpendable MTD
V21	Vendor Items Received Nonexpendable YTD

<u>Element Code</u>	<u>Description</u>
V22	Vendor Items Received Total Dollars MTD
V23	Vendor Items Received Total Dollars YTD
V24	Vendor Items on Order Total Titles MTD
V25	Vendor Items On Order Total Titles Current
V26	Vendor Items On Order Total Copies Current
V27	Vendor Items On Order Total Copies Current
V28	Vendor Items On Order Total Dollars MTD
V29	Vendor Items On Order Total Dollars Current
V30	Vendor Items Cancelled Total Titles MTD
V31	Vendor Items Cancelled Total Titles YTD
V32	Vendor Items Cancelled Total Copies MTD
V33	Vendor Items Cancelled Total Copies YTD
V34	Vendor Items Cancelled Total Dollars MTD
V35	Vendor Items Cancelled Total Dollars YTD
V36	Vendor Date
V37	Vendor Coupon Purchase - Balance
V38	Vendor Coupon Purchase - Reorder Dollars

Element Code

Description

V39	Vendor Purchase Number
V40	Vendor Voucher Number
V41	Vendor Order Code
V42	Vendor Order Number (Control Number)
V45	Vendor Next Item Number

9AV - The following elements are mandatory input for adding a vendor:

<u>Element Code</u>	<u>Description</u>
V39	Purchase number (must be first element keyed in)
V02	Name
V03	Address
V04	Dollars authorized - 6 months total
V06	Dollars authorized - day total
V41	Order code (vendor type)
V42	Control number (order number) not mandatory for requisition vendor (order code 'R')

If Order Code (V41) is a 'C' coupon vendor, then V37 (coupon balance) and V38 (reorder level) are mandatory elements.

If V05 (dollars authorized - 6 months balance) or V07 (dollars authorized - day balance) is not input, V05 will be made equal to V04 and V07 will be made equal to V06.

Optional elements may also be entered. The only elements not allowed are V01 (vendor code) and V36 (date). These values are assigned by the program: V01 will be the next sequential number after the last vendor on file or if a vendor has been deleted, the new vendor will be assigned the code of the deleted vendor, and V36 will be assigned the current Julian date (YYDDD).

Any optional numeric elements which are not entered will be assigned a value of zero and alphanumeric fields not entered will be spaces.

Example:

9AV/V3901-A-0001/V02 NAME/V03 ADDRESS/V041,000/V06205/V41A '#

9CV - All elements except V01, V39, and V36 may be changed by a 9CV action. In addition V42 may not be changed for a requisition vendor (order code 'R'). Element V36 may be changed by a 9CD action.

Mandatory elements are V01 followed by V39.

If an alphanumeric field is to be blanked out, enter the element code without any data.

Example:

9CV/V0101/V3901-A0001/V02 '#

9DV - This action may be used to display:

1. One to four vendors in their entirety
2. Selected elements of one to four vendors
3. Any combination of 1. and 2.
4. All vendors (in abbreviated format)

Mandatory elements are V01 followed by V39, except when displaying all vendors, in which case V01 and V39 are not required.

Examples:

9DV/V0101/V3901-A-0001/V40 '# displays element V40 for vendor 01.

9DV/V0102/V3902-A-0001/V0104/V3901-A-0002 '# displays all information for vendors 2 and 4.

9DV/V0102/V3902-A-0001/V45/V0103/V3901-A-0003 '# displays element V45 for vendor 2 and all information for vendor 3.

9DV/ALL '# displays all vendors in predefined format.

NOTE: The vendor date can only be displayed by using 9DD action code.

9EV - This action removes a vendor from the file. (It actually does not get removed from the file until the end-of-month statistics program is run. At this time the record is cleared and may be reused by the next vendor added.) Total Dollars on Order for Year (V29) must be zero before a vendor can be erased.

Mandatory input if V01 followed by V39. These are the only elements required.

Example:

9EV/V0104/V3901-A-0004 '#

9CD - This action must be entered every day for Account vendors that are to be ordered against. In addition to changing the date, the Dollars Authorized Daily Balance is reinitialized to Total Dollars Authorized per Day.

The required input is V01, V39, and the date.

Example:

9CD/V0107/V3902-A-0002/DDMMYY '#

Where DD is day of month, MM is month of year, and YY is last two digits of year.

9DD - The only function of this action is to display the vendor date. Required input is V01 and V39.

Example:

9DD/V0106/V3901-A-0002 '#

USER (DATA) ERROR MESSAGES

Messages 1 through 8 are displayed as err-msg in the following message.

ELEMENT (CODE) - (ERR-MSG)

1. INVALID - FIRST CHAR MUST BE 'V'

INVALID ELEMENT CODE - CHAR 2, 3 MUST BE NUMERIC

The only element codes valid for this program are three characters: 'V' followed by two numeric digits.

2. (ELEMENT CODE) IS INVALID ELEMENT CODE FOR ACTION (ACTION CODE)

Check list of valid element codes.

3. INVALID CHARACTER NAME-EDIT

VØ2 has invalid characters (other than alphabetic).

4. INVALID CHARACTER ADDR-EDIT

VØ3 has characters other than alphabetic and numeric

5. INVALID CHARACTER NUM-EDIT

Some numeric field has nonnumeric character.

6. IMPROPERLY PLACED DECIMAL

Decimal point, if entered, must be between second and third digit from right.

7. INVALID CHARACTER BEFORE NEGATIVE OR \$ AMT FIELD

The only valid characters preceding numeric field are '-' and '\$'.

8. INVALID - MUST BE C, R, A, OR B

9. VENDOR NAME MISSING

VENDOR ADDRESS MISSING

VENDOR \$ AUTHORIZED PER 6 MOS - TOTAL MISSING

VENDOR \$ AUTHORIZED PER DAY - TOTAL MISSING

VENDOR PURCHASE NUMBER MISSING

VENDOR ORDER CODE MISSING

All above items are mandatory on 9AV.

10. VENDOR COUPON BALANCE DATA MISSING

VENDOR COUPON RE-ORDER DATA MISSING

These two items are mandatory on 9AV when V41 is 'C'.

11. INVALID - ONLY VALID CHARS ARE A THRU Z, 1 THRU 9, SPACE

V42 (Order number) has invalid character.

12. V02 OR V03 GREATER THAN 60 CHARACTERS

Vendor name or vendor address is 60 characters maximum.

13. CANNOT DISPLAY MORE THAN 4 VENDORS PER TRANSACTION

14. ELEMENTS V01 AND V39 MUST BE ENTERED FIRST

15. NO DATA AFTER SLANT BAR

There is no data following slant bar after action code.

16. ELEMENT CODES IMPROPER - MUST BE V01 WITH DATA THEN V39 WITH DATA

17. NO DATA AFTER ELEMENT CODE

V01 entered but no data following it.

18. INVALID VENDOR CODE KEYED IN

Vendor code not numeric.

19. CHARACTERS 1, 2, 6, 7, 8, AND 9 OF VENDOR PURCHASE NUMBER MUST BE NUMERIC

20. CHARACTER 4 OF VENDOR PURCHASE NUMBER MUST BE ALPHABETIC

21. CHARACTERS 3 AND 5 OF VENDOR PURCHASE NUMBER MUST BE A DASH

22. VENDOR PURCHASE NUMBER MUST HAVE 9 CHARACTERS IN FORMAT 99-A-9999

23. NO DATA AFTER PURCHASE NUMBER

No date entered on 9CD action.

24. NO SLANT BAR AFTER PURCHASE NUMBER

25. DATE MUST BE NUMERIC

26. DATE CANNOT EXCEED 6 CHARACTERS---DDMMYY

27. DATE-YEAR MUST BE EITHER THIS YEAR OR NEXT YEAR
28. DATE-MONTH MUST BE 01 THROUGH 12
29. DATE-DAY MUST BE 01 THRU 31 IN 31-DAY MONTH
DATE-DAY MUST BE 01 THRU 30 IN 30-DAY MONTH
DATE-DAY MUST BE 01 THRU 28 IN FEBRUARY IN NON-LEAP-YEAR
30. IN ORDER TO DISPLAY DATE, YOU MUST USE ACTION CODE 9DD
Vendor date cannot be displayed using 9DV.
31. VENDOR TABLE FULL---CANNOT ADD THIS VENDOR
Maximum of 351 vendors is on file already; no more can be added.
32. DATE CAN ONLY BE CHANGED ON A CHARGE ACCOUNT ORDER
9CD action can only be executed against Account vendor (V41 = A).
33. PURCHASE NUMBER INCORRECT FOR THIS VENDOR
Input V39 does not agree with input V01.
34. VENDOR CODE KEYED-IN BEYOND MAXIMUM
Input vendor code greater than 351.
35. VENDOR CODE KEYED-IN NOT ON FILE
36. CANNOT DELETE--THERE ARE ITEMS ON ORDER FOR THIS VENDOR
Total Dollars on Order for Year is not equal to zero.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 9V001 - Invalid key read Vendor Work record
- 9V002 - Invalid ID Vendor Work record
- 9V003 - Invalid key read Vendor record
- 9V004 - Invalid ID Vendor record
- 9V005 - Invalid key write Vendor record
- 9V006 - Invalid key read prior to write
- 9V007 - Invalid key write vendor record
- 9V011 - Invalid key read vendor record
- 9V012 - Invalid ID vendor record

2.4.10 Change Order

Action Code 9CO is processed by this program.

When changing order elements, the input format will be as follows:

9CO/ORDER NO./ITEM NO./SEQ NO./DATA ELEMENTS/'#

Allowable Order Data element codes are:

- V01 - Vendor code (3 numerics)
- B26 - Quantity ordered (3 numerics)
- B27 - Unit price (6 numerics with or without decimal point)
- B28 - Quantity received (3 numerics)
- B30 - Order notes (appears on order)
- B31 - Unit of issue (3 characters: EA , VOL, SET, or LOT)
- B32 - Order messages (appears on Outstanding Order File)
- B45 - Media code (1 character, range A through I - must be entered when B28 is increased)

Vendor Code (V01) may be changed only from a blanket vendor to some other valid vendor.

Order notes (B30) may be deleted by inputting element code followed by a dollar (\$) sign. If element is just being replaced (that is, input element replaces existing data) just input new data. Order messages (B32) may also be deleted by inputting element code followed by a (\$) sign. If element is to replace existing data input consists of element code, \$, comma, new data. If data is to be stacked (that is new data is to be added to old data) input element code with new data. Input for B30 and B32 combined cannot exceed 210 characters.

Quantity received (B28) cannot be greater than quantity ordered on the Book Master Record.

Other capabilities provided by this program are to change on order from:

1. RSIC to a patron

Input format:

9CO/ORDER NO./ITEM NO./COPY NO./P01(SSN)'#

Where SSN is 9-digit social security number of the patron to whom it is being changed.

2. Patron to patron

Input format:

Same as input format 1.

3. Patron to RSIC

Input format:

9CO/ORDER NO./ITEM NO./COPY NO./P01000000000/'#

Enter 9 zeros to change to RSIC.

USER (DATA) ERROR MESSAGES

1. SEQUENCE NUMBER NOT NUMERIC
Sequence number must be three numerics.
2. INPUT SEQUENCE NUMBER = 0
Sequence number must be greater than zero.
3. NO / AFTER SEQUENCE NUMBER
NO / AFTER EITHER 9EO, 9CA, OR 9CO
4. INVALID ELEMENT CODE
Element Code must be V31, B26, B27, B30, B31, B32, B45, or P01.
5. EITHER V01, B26, OR B28 NOT NUMERIC
6. B31 MUST BE LOT, SET, VOL, OR EA
7. B30 OR B32 OR COMBINATION OF B30 AND B32 > 210 CHARS
8. P01 NOT NUMERIC OR MORE THAN 9 DIGITS
9. Not used.
10. RSIC FILE ERROR----HALT PROCESSING
This message indicates that some file updating may have been done. Check by doing displays and report any unresolved problems to responsible programmer/analyst.
11. MEDIA CODE REQUIRED---B23 NOT PROCESSED
The input B28 was greater than quantity received on the master record; therefore a media code must be entered.
12. NOT ENOUGH COPIES TO BE ADJUSTED BY B28
There are not enough copies on order to allow for the indicated update of B28.
13. INPUT B28 = B28 ON BMR - NO CHANGE
Input B23 is ignored but other elements being changed by same action will be processed.

14. INPUT B26 = B26 ON BMR - NO CHANGE

Input B26 ignored; other elements processed.

15. NOT ENOUGH COPIES TO BE DELETED BY B26

Input B26 is less than B26 on BMR but there are not enough copies on order to be deleted.

16. COPY NBR TOO LARGE

Copy to be changed is greater than number of copies on master record.

17. COPY NOT ON ORDER or COPY REQUESTED NOT ON ORDER

Copy to be changed is not on order.

18. COPY ON ORDER FOR ANOTHER PATRON

Copy to be changed is on order for a patron.

19. OLD B30 AND/OR B32 MORE THAN 500 CHARACTERS

This amount (500 characters) has been set as a reasonable maximum. Call responsible programmer if it is necessary to change this maximum.

20. SOCIAL SECURITY NUMBER NOT ON FILE---

PROCESSING TERMINATED

Attempting to change a copy on order revealed that the input patron social security number was not on file.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- 9E001 - Invalid vendor code in order data
- 9E002 - Vendor code on vendor record incorrect
- 9E004 - Order entry on BMR not on Order Index.
- 9E005 - Invalid key on read
- 9E006 - Invalid ID on RSIC record
- 9E007 - Invalid key on write
- 9E008 - More than 10 segments for Patron record
- 9E009 - More than 20 Patrons being adjusted
- 9E010 - Total copy count on Patron record incorrect

2.4.11 Zero Order Index - Action Code ZOI

This action is used to eliminate erroneous order entries in the order index of the Book Ordering and Receiving Subsystem by filling such order entries with alphanumeric zeros.

The input consists of action code (ZOI), slant bar, order number of the entry in error, slant bar, item number of the entry in error, slant bar, and '#.

EXAMPLE: ZOI/0017542/3298/'#

The order entry containing order number 0016542 and item number 3298 will be deleted.

Output consists of the following message:

ORDER NO 0017542 ITEM NO 3298 ORDER DATE 09/11/81 BOOK ADDRESS 0014362

USER (DATA) ERROR MESSAGES

1. ORDER NUM 0010274 AND ITEM NUM 2386 CAN NOT BE FOUND IN THE ORDER INDEX

The order number and item number are not on the order index file. The user should check the input for validity.

2. INPUT WAS KEYED INCORRECTLY - PLEASE REKEY XXX 114 POSITIONS XX

The user must reenter the action, correcting any input mistakes shown in this error message. Note that a nonnumeric item number will return this error message.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

Invalid Key Encountered on Order Index Read (index address)

Invalid Key Encountered on Order Index Write (index address)

Invalid Rec-ID on Order Index at Address (index address) Rec-ID is (ID in error)

2.5 LANGUAGE CONTROL SUBSYSTEM

The Language Control file is the control authority for all subjects used in the cataloging and retrieval subsystem. It is maintained in alphabetical sequence by subject term. This subsystem provides the necessary capabilities for maintaining a current file.

The file consists of four types of terms.

1. Valid (A) - Is used as a book subject and/or cross-reference term and may have all elements.
2. See Reference (B) - Must be a cross-reference to at least one valid term; cannot be a cross-reference to another see reference term, and cannot have LC numbers.
3. Invalid (D) - Must contain comments and only comments.
4. Temporary (E) - Added through the cataloging system and is treated as a valid term.

The terms substituent and cross-reference are used interchangeably throughout this section when discussing the relationship between terms. The relationship between terms is denoted by the generic code. The following tables define the relationships between the terms.

<u>Printed Generic Code</u>	<u>Generic Code Definition</u>	<u>Input Generic Code</u>	<u>Relationship</u>
SA	See Also	N	Indicates a reference to a related or subordinate topic.
XX	Seen Also From	B	Indicates a related heading from which a "see also" reference is made.
SA/XX	See Also and See Also From	R	Indicates a "see also" relationship for both valid terms.
X	See From	S	Indicates a reference from an expression not itself used as a heading.

2.5.1 Scan Thesaurus - Action Code 40

This program scans the Language file and lists the 10 language terms that are equal or greater than the input term.

The input is action code 40, slant bar, and the term or part of a term (1 to 70 alphanumeric characters, with the first being alphabetic).

Example:

40/ABSORPTION'#

The output is the following list.

001 absorption

002 absorption - addresses, essays, lectures

003 absorption (physiology)

004 absorption of sound

005 absorption of sound - addresses, essays, lectures

006 absorption spectra

007 acronyms

008 adult education

009 age and employment

010 algol (computer program language)

To see the next ten terms, the operator enters 'OK'.

OK'#

This process may be continued until (1) the desired number of terms is listed, (2) the program has scanned to the end of the Language file, or (3) 999 terms have been listed. After 999 terms have been listed, the following message is displayed and the operator must enter another action to continue the scan.

END OF SCAN CANNOT CONTINUE LIST

If the input term is greater than any on file, the following message is displayed.

INVALID TERM IN INPUT

If there are fewer than ten terms equal or greater than the input term, these are displayed. The following message is then displayed.

END OF SCAN

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- LE10 - Invalid key on read Language - Prime 1 record.
- LE11 - Invalid ID in Language - Prime 1 record.
- LE12 - Invalid key on read Language - Prime 3 record.
- LE13 - Invalid ID in Language - Prime 2 record.
- LE14 - Invalid key on read Term record.
- LE15 - Invalid ID in Term record.
- LE16 - Invalid key on read Language - Prime 2 record.
- LE17 - Invalid ID in Language - Prime 2 record.
- LE18 - Invalid key on read Language - Prime 2 record.
- LE19 - Invalid ID in Language - Prime 2 record.
- LE20 - Invalid key on read Tswork record.
- LE21 - Invalid ID in Tswork record.
- LE22 - Invalid key on read Tsword overflow record.
- LE23 - Invalid ID in Tswork overflow record.
- LE24 - Invalid key on write Tswork overflow record.

2.5.2 Display Term - Action Code 41

The display program can be used to display any information stored in the term record. The term to be displayed is determined by the input. The input may be a request by term or by list number.

A standard display consists of the element codes preceded by an asterisk (*). The remaining codes will be displayed on request.

*L01 -- Term
L02 -- Term type
L03 -- Date added
L04 -- Date of last direct action
L05 -- Date of last indirect action
*L06 -- Comments
*L07 -- Related (substituent) terms
*L08 -- LC numbers with related comments
L09 -- Number of book cross-references

The input consists of action code 41, slant bar, term or list number.

Example:

41/ABSORPTION SPECTRA/103/109'†

ABSORPTION SPECTRA

COMMENTS..SEE ALSO SUBDIVISION SPECTRA UNDER SUBJECTS, E.G. DRUGS - SPECTRA.

QC437

01 SA ASTRONOMICAL SPECTROSCOPY
02 SA ATOMIC ABSORPTION SPECTROSCOPY
03 XX EXCITON THEORY
04 SA HEAT - RADIATION AND ABSORPTION
05 SA INTERNAL REFLECTION SPECTROSCOPY
06 SA MOLECULAR SPECTRA
07 X SELECTIVE ABSORPTION

08 XX/SA SPECTRUM ANALYSIS

DATA ADDED 23 JUL 66
BOOK CROSS REFERENCES 00077

If the request is by list number, the input must follow a scan action. A single line number will display data from the term record having the sequence number from the scan action. If a second line number is input, the first is the sequence number from the scan action and the second is the sequence number of the related term following the display action using the one line number. If necessary, a third line number may be input. It will follow a second line number display, and the third number will be the sequence number of a term from the second line number display. The following examples will consider the example in the Scan program as the preceding scan action.

41/06/'#

The example requests a standard display of the term ABSORPTION SPECTRA with a single line number. The output is shown in the preceding example.

41/06,03/'#

This example requests a standard display of the term MOLECULAR SPECTRA with a double line number. The output is as follows:

EXCITON THEORY

01 SA absorption spectra

41/6,3,01/'#

This example illustrates a request by triple line number resulting in ABSORPTION SPECTRA being displayed.

The line numbers may be one, two, or three numerics. A comma separates the line numbers. A slant bar terminates the line number request.

If the requested term is not on file, the following message is displayed.

TERM SELECTED IS NOT ON FILE

USER (DATA) ERROR MESSAGES

1. ERROR---NO DATA AFTER ACTION CODE

The user must enter the action with a term or line number.

2. ERROR---IMPROPER ELEMENT CODE

The input contained an element code other than L02, L03, L04, L05, and L09. The action was terminated. The user must enter the action with only valid element codes.

3. IMPROPER ELEMENT CODE KEYED IN

The element code began with a character other than 'L'. The action was terminated.

4. L ELEMENT CODE IMPROPERLY KEYED IN

Same as 2.

5. INVALID DISPLAY NUMBER KEYED IN

The user input zero as the first number. The action is terminated.

6. DISPLAY NUMBER REQUESTED TOO LARGE

The user must enter the action with the proper line numbers.

7. INVALID TERM IN INPUT

The term began with a nonalphabetic character. The input must be corrected and reentered.

8. TERM EXCEEDS 70 CHAR---DISPLAY TERMINATED

The user must shorten the base term and reenter the action.

9. NO ELEMENT ENTRY RECEIVED

The input was completed without a term or valid element code.

10. NO SLANT BAR AT END OF ELEMENT ENTRY

The input contained a character other than a slant bar following the element code. The action was terminated.

11. L IS NOT PRESENT IN ELEMENT CODE

The user must correct the input and reenter the action.

12. IMPROPER ELEMENT CODE

In addition to not being one of the valid codes in 2, it is not L10 either. The user must correct the input and reenter the action.

13. NO CHAIN ADDRESS FOR COMMENTS SEE PROGRAMMER

The user has no control over this and should immediately contact the responsible programmer/analyst.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- LBASE - Invalid term in input
- LF01 - Invalid key on read Tswork overflow record
- LF02 - Invalid ID in Tswork record
- LF03 - Invalid key on read Term record
- LF04 - Invalid ID in Term record
- LF05 - Chain address is not present
- LF06 - Invalid key on read Term record
- LF07 - Invalid ID in Term record
- LF08 - Chain address is not present
- LF09 - Invalid key on read Language - Prime 1 record
- LF10 - Invalid ID in Language - Prime 1 record
- LF11 - Invalid key on read Language - Prime 2 record
- LF12 - Invalid ID in Language - Prime 2 record
- LF13 - Invalid key on read (substituent) Term record
- LF14 - Invalid ID in (substituent) Term record
- LF15 - Book type is not valid

2.5.3 Add Term - Action Code 43

This action adds a term (subject heading) record containing the input data to the file. It creates a cross-reference to the Language Index.

The following elements are mandatory for adding a term to the file:

1. Term (L01) - one to 70 alphanumeric characters.
2. Term Type (L02) - A (valid term), B (see reference term), D (invalid term), or E (temporary term).

The input consists of the action code (43) followed by a slant bar, element code (L01) and term, slant bar, element code (L02) and term type, and slant bar.

43/L01ABACUS/L02A/'#

The term ABACUS is added to the file as a valid term.

Following the mandatory input may be sets of optional data consisting of element code, data, and slant bar.

Optional input is as follows:

1. Element Code L06 followed by comments, which may be any number of alphanumeric characters.

43/L01AESTHETICS/L02A/L06 SEE ALSO SUBDIVISION AESTHETICS UNDER NAMES OF PERSONS.

2. Element code L07 followed by generic code, term type of cross-reference term, comma, cross-reference term. The generic code is S, B, R, N, depending on the cross-reference term type. The cross-reference term is a base term in the file. The term and term type are edited as L01 and L02.

43/L01SONAR/L02A/L07SB,ECHO RANGING '#

43/L01SUBMARINE BOATS/L02A/L07NA, SONAR '#

The first example adds the valid term SONAR to the file having the see reference term ECHO RANGING as its cross-reference term. The term SUBMARINE BOATS is added to the file with the valid term SONAR as its cross-reference term.

3. Element code L08 followed by suggested LC number with associated comments, which may be up to 70 alphanumeric characters.

43/L01 ALGEBRA/L02A/L08QA 152-263/'#

If more than one element per element code is to be added, double commas will separate multiple entries. Otherwise, multiple entries of element code, data, slant bar will be made. There is a limit of 18 element codes per transaction. Any combination of these may be used as input with the following exceptions:

1. An invalid term must have comments and cannot have substituent terms or LC numbers.
2. A see reference term must have one cross-reference term and cannot have LC numbers.

Invalid and see reference terms cannot be used as subject headings of books.

The output is the following message (Term).

ADD TERM ACTION HAS BEEN PROCESSED

USER (DATA) ERROR MESSAGES

1. L02 MUST PRECEED L07
ADD TERM TRANSACTION TERMINATED

The user must reenter the action with L02 as one of the first two elements.
2. SUBSTITUENT TERMS CANNOT BE ADDED TO INVALID TERMS
ADD TERM TRANSACTION TERMINATED

The user must reenter the action omitting L07.
3. THE FOLLOWING ELEMENT CODE IS INVALID. ELEMENT BY-PASSED
(OMITTED DATA)

The user must correct the invalid data. If the invalid data was a mandatory element, the action must be reentered. Otherwise, a change term action must be entered.
4. THE FOLLOWING ELEMENT WAS BY-PASSED DUE TO INSUFFICIENT DATA
(OMITTED DATA)

No user action required.
5. BASE TERM TOO LONG. FIRST 70 POSITIONS ACCEPTED

No user action required.
6. INVALID TERM TYPE (term type) BY-PASSED.

The user must correct the term type and reenter the action if there is not a valid term type in the input.
7. TOO MANY VARIABLE DATA ELEMENTS TO HANDLE.
VARIABLE ELEMENTS BEGINNING WITH THE FOLLOWING WILL BE BY-PASSED
IF A SIMILAR ELEMENT HAS BEEN PROCESSED. (OMITTED DATA)

The user must enter a change term action including the elements by-passed.
8. GENERIC CODE AND TERM TYPE MUST BE FOLLOWED BY A COMMA---WAS
BY-PASSED (OMITTED DATA)

The user must enter a change term action adding the substituent term.
9. INVALID GENERIC CODE (generic code). SUBSTITUENT TERM BY-PASSED.
(OMITTED DATA)

The substituent term must be entered with a change term action.

10. INVALID COMBINATION OF GENERIC CODE (generic code) AND TERM TYPE (term type) (OMITTED DATA)

The substituent term must be entered with a change term action.

11. INVALID TERM TYPE (term type). ELEMENT BY-PASSED. (OMITTED DATA)

The substituent term must be entered with a change term action.

12. SUBSTITUENT TERM OR LC NUMBER TOO LONG. FIRST 70 POSITIONS ACCEPTED. (OMITTED DATA)

No user action required.

13. THE FOLLOWING MANDATORY ELEMENTS ARE MISSING (missing element a-d)

- a. BASE TERM
- b. TERM TYPE
- c. BOOK SUBSTITUENT TERM
- d. BOOK COMMENT

The user must correct the input and reenter the add action.

14. TERM ALREADY ON FILE. ADD TERM ACTION TERMINATED.

The user should display the term to ensure that the record contains all the information included in the add action.

15. EXCEEDS OUTPUT LIMITS (OMITTED DATA)

A substituent term which has an error in either the generic code or term type also exceeds 70 characters. The user must enter a change term action.

16. INVALID SUBSTITUENT TERM TYPE (term type) FOR BASE TERM TYPE (term type) (OMITTED DATA)

The user must correct the input and enter a change term action.

17. THE FOLLOWING SUBSTITUENT TERM IS ALREADY ON FILE AS TYPE (term type) (OMITTED DATA)

The user must correct the input and enter a change term action.

18. INVALID TERM IN INPUT

Either the base term or a substituent term did not begin with an alphabetic character. The user must correct the input and reenter the add action.

19. INPUT CONTAINS TWO ELEMENTS FOR (element code) THE LAST WAS USED.
THE FOLLOWING WAS BY-PASSED. (element code, by-passed data)

The input contains either multiple base terms or multiple term types. The last entry is used.

20. B AND D TERMS CANNOT HAVE LC NUMBERS-L08 BY-PASSED.

No user action required.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- LB01 - Invalid record ID in Language Statistics record.
- LB02 - Input exceeds 230 characters but there is no overflow address.
- LB03 - Input has overflowed more than once but there is no overflow address.
- LARD - Invalid key on read or invalid ID in RSIC-FILE record.
- LAWT - Invalid key on write RSIC-FILE record.
- LBASE - First letter of input base term is not alpha.
- LBVR3 - Invalid key on read Tswork record.

2.5.4 Change Term - Action Code 44

Change Base Term - Action Code 46

Add substituent Term - Action Code 47

Delete Substituent Term - Action Code 48

CHANGE TERM - Action Code 44

The purpose of this program is to change elements of data in the term record by deletion, addition, a combination of both, or replacement.

The mandatory input is action code 44, slant bar, element code L01, base term, slant bar. It must be followed by one set of optional data consisting of element code, data, slant bar.

The following capabilities are available with this action code:

1. Change the term type (L02) by replacement. The term type will be A (valid) or E (temporary). This change requires that the number of cross-references be zero.
2. Change the comments (L06) by deletion (\$), addition, or a combination of these. The delete must precede the add or all comments added prior to the delete are deleted. The comments will be any number of alphanumeric characters.

44/L01CRIME AND CRIMINALS/L06\$,,SEE ALSO HEADINGS BEGINNING WITH THE WORD CRIMINAL/'#

The comments were deleted from the CRIME AND CRIMINALS term record and the above were added.

3. Change the LC numbers with associated comments (L08) by addition, deletion, or a combination of these. The LC numbers are one to 70 alphanumeric characters or 70 truncated characters. The LC number being deleted must match an entry on the term record.

44/L01 CRYOSTAT/L08QC 278\$,,QC 278.1'#

LC number QC 278 is being deleted from the CRYOSTAT term record while QC 278.1 was added.

If more than one element for the element code is to be changed, double commas (,,) will separate multiple elements. Otherwise, multiple entries will be made. There is a limit of 18 different input element code entries.

Any combination of the above changes may be used, with the following exceptions:

1. A valid, temporary, or invalid term cannot be changed to a see reference term. This can be done with a delete action followed by an add action.
2. An invalid term must have comments.
3. See reference and invalid terms cannot have LC numbers.
4. Term type change requires that subterms be zero.

The output is the following message:

CHANGE TRANSACTION HAS BEEN PROCESSED

CHANGE BASE TERM - Action Code 46

The purpose of this program is to change base term ty replacement.

The mandatory input is action code 46, slant bar, element code L01, base term, slant bar, followed by element code L10, new base term, slant bar, '#.

The following capabilities are available:

1. Change base term (L10) by replacement. The base term will be one to 70 alphanumeric characters.

46/L01 FLIGHT, SPACE/L10SPACE FLIGHT/'#

The term FLIGHT, SPACE was changed to SPACE FLIGHT. If FLIGHT, SPACE had substituent terms or was used as a subject heading, then the cross-references were changed. If SPACE FLIGHT was already on the file, then all information for FLIGHT, SPACE was added to the SPACE FLIGHT record. Otherwise, SPACE FLIGHT was added to the file containing the information on FLIGHT, SPACE record.

The same rules for change term apply to change base term.

The output is the following messages:

- a. TERM (L01 INPUT TERM)
- b. If L10 Term is not on file, ADD TERM HAS BEEN PROCESSED
- c. (L01 Term)
DELETE TRANSACTION PROCESSED
- d. If L01 Term has any comments and/or LC numbers then,
TERM (L10 TERM)
CHANGE TRANSACTION HAS BEEN PROCESSED
- e. CHANGE BASE TERM TRANSACTION HAS BEEN PROCESSED.

NOTE: Some error messages occurring during a change base term transaction will be located in the user documentation for ADD and DELETE TERM transactions.

ADD SUBSTITUENT TERM - Action Code 47

The purpose of this transaction is to add substituent terms to base terms already on the data file.

The mandatory input is action code 47, slant bar, element code L01, base term, slant bar. This is followed by element code L07, generic code, term type, comma, term, dollar mark, slant bar.

The input is generic code (B, S, N, or R), term type (A, B, or E which must agree with the file), comma, and substituent term which is one to 70 alphanumeric characters.

Examples:

47/L01CRITICISM/L07NA,STYLE, LITERARY/'#

STYLE, LITERARY is a valid term and is added as a substituent term to the valid term CRITICISM.

47/L01CRIME AND CRIMINALS/L07SB,CRIMINALS/'#

CRIME AND CRIMINALS is a valid term and CRIMINALS, which is a see reference term, is added as a substituent term.

If more than one element for the element code is to be changed, double commas (,,) will separate multiple elements. Otherwise, multiple entries will be made. There is a limit of 18 different input element code entries.

47/L01RACON/L07SB,RADAR BEACONS,,NA,BEACONS/'#

Any combination of the above changes may be used, with the following exception:

Invalid terms cannot have cross-reference terms.

The output is the following message:

ADD X-REF TERMS ACTION HAS BEEN PROCESSED

DELETE SUBSTITUENT TERM - Action Code 48

The purpose of this transaction is to delete substituent terms off base terms already on the data file.

The mandatory input is action code 48, slant bar, element code L01, base term, slant bar. This is followed by element code L07, generic code, term type, comma, term, dollar mark, slant bar.

The input is generic code (B, S, N, or R), term type (A, B, or E which must agree with the file), comma, and substituent term which is one to 70 alphanumeric characters. The substituent term must match one on the term record. If the substituent term is the last one on a see reference term record, the see reference term is deleted from the file.

48/L01 CRIMINALS/L07SA, CRIME AND CRIMINALSS/'#

CRIMINALS is a see reference term and CRIME AND CRIMINALS is its only substituent term. Therefore, the term record CRIMINALS will also be deleted from the file.

If more than one element for the element code is to be changed, double commas (,,) will separate multiple elements. Otherwise, multiple entries will be made. There is a limit of 18 different input element code entries.

48/L01 RACON/L07SB,RADAR BEACONSS,,NA. BEACONSS/'#

The output is the following message:

DELETE X-REF TERMS ACTION HAS BEEN PROCESSED

USER (DATA) ERROR MESSAGES

1. INPUT IS TOO LONG TO BE PROCESSED---SHORTEN AND RESUBMIT
The input contained more than 18 element codes. The user must enter either multiple change transactions or multiple elements with the element codes.
2. (LXX) IS AN INVALID ELEMENT CODE FOR THE CHANGE PROGRAM
The element code is invalid. The data following it through the slant bar is ignored. The user must enter a change action including the by-passed data with a valid element code.
3. TERM TYPE (term type) IS AN INVALID CHANGE FOR TERM TYPE (term type).
The user should check the documentation for the procedure for this type of change.
4. TERM TYPE (term type) CANNOT BE CHANGED BY THIS TRANSACTION
The user must enter a delete transaction followed by an add transaction.
5. INVALID CONDITION
The base term type is not present. The user should contact the responsible programmer/analyst.
6. BASE TERM (base term)
IS NOT ON FILE
The user should check the input. If the input term is valid, the term must be added to the file.
7. INPUT IS INSUFFICIENT---BASE TERM NEEDED
The user must reenter the action including a base term.
8. COMMENTS CANNOT BE DELETED---INVALID TERMS HAVE COMMENTS
The input must contain comments to be added if the comments for an invalid term are to be deleted.
9. COMMENTS ARE NOT PRESENT AND CANNOT BE DELETED
The user should check the input for the valid base term.

10. (base term) TOO LONG

THIS CHANGE WAS NOT COMPLETE

The user must shorten the base term to 70 characters and reenter the action.

11. TERM (generic code, term type), (substituent term)

REQUIRES NO CHANGE AND WAS NOT DELETED

The requested change for the substituent was not necessary.

12. TERM (generic code, term type), (substituent term)

SUBTERM IS NOT IN RECORD

The user should check the input for the valid base term and substituent term.

13. (cross-reference term)

IS NOT ON FILE

The data file is in error. The user should immediately contact the responsible programmer/analyst.

14. LAST SUBTERM DELETED FROM B-TERM---B-TERM DELETED

No user action required.

15. TERM (base term)

WAS NOT LOCATED ON THE SUBTERM RECORD - WAS NOT CHANGED

The user should display the term and all of its cross-reference terms to check this change. The message is due to a data file error.

16. INPUT BUILT INCORRECTLY IN HOLD

The user should immediately contact the responsible programmer/analyst.

17. TERM (base term)

CANNOT BE CHANGED---TERM TYPES INCOMPATIBLE

The user cannot change the input base term to the desired base term which is already on the file with an incompatible term type.

18. SYSTEMS ERROR---UNABLE TO HANDLE THIS SIZE RECORD

The user should immediately contact the responsible programmer/analyst.

19. SEE REFERENCE AND INVALID TERM TYPES CANNOT HAVE LC NUMBERS ADDED

No user action required.

20. BASE TERM IS TOO LONG---TERM PROCESSED

The first 70 characters were used as the term.

21. (base term)---AN INVALID TERM---

CANNOT HAVE SUBSTITUENT TERMS

No user action required. The processing continues.

22. INVALID CONDITION - COMMENTS - LB0689

The data file is in error. The user should immediately call the responsible programmer/analyst.

23. INPUT IS INVALID

The term did not begin with an alphabetic character.

24. (Message a-q)

(OMITTED DATA)

a. THE FOLLOWING ELEMENT CODE IS INVALID. ELEMENT BY-PASSED

The user must correct the invalid data. If the invalid data was a mandatory element, the action must be reentered. Otherwise, a change term action must be entered.

b. THE FOLLOWING ELEMENT WAS BY-PASSED DUE TO INSUFFICIENT DATA

No user action required.

c. BASE TERM TOO LONG. FIRST 70 POSITIONS ACCEPTED

No user action required.

d. INVALID TERM TYPE (term type) BY-PASSED.

The user must correct the term type and reenter the action if there is not a valid term type in the input.

- e. TOO MANY VARIABLE DATA ELEMENTS TO HANDLE.

VARIABLE ELEMENTS BEGINNING WITH THE FOLLOWING WILL BE BY-PASSED IF A SIMILAR ELEMENT HAS BEEN PROCESSED.

The user must enter a change term action including the elements by-passed.

- f. GENERIC CODE AND TERM TYPE MUST BE FOLLOWED BY A COMMA---WAS BY-PASSED

The user must enter a change term action adding the substituent term.

- g. INVALID GENERIC CODE (generic code). SUBSTITUENT TERM BY-PASSED.

The substituent term must be entered with a change term action.

- h. INVALID COMBINATION OF GENERIC CODE (generic code) AND TERM TYPE (term type)

The substituent term must be entered with a change term action.

- i. INVALID TERM TYPE (term type). ELEMENT BY-PASSED.

The substituent term must be entered with a change term action.

- j. SUBSTITUENT TERM OR LC NUMBER TOO LONG. FIRST 70 POSITIONS ACCEPTED

No user action required.

- k. THE FOLLOWING MANDATORY ELEMENTS ARE MISSING

(missing element 1-4)

(1) BASE TERM

(2) TERM TYPE

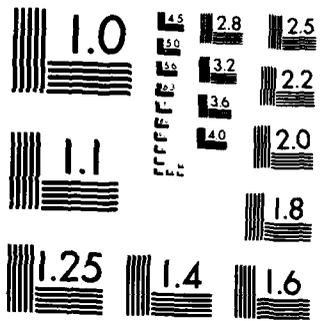
(3) BOOK SUBSTITUENT TERM

(4) BOOK COMMENT

The user must correct the input and reenter the add action.

- l. TERM ALREADY ON FILE. ADD TERM ACTION TERMINATED

The user should display the term to ensure that the record contains all the information included in the add action.



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

m. EXCEEDS OUTPUT LIMITS

A substituent term which has an error in either the generic code or term type also exceeds 70 characters. The user must enter a change term action.

n. INVALID SUBSTITUENT TERM TYPE (term type) FOR BASE TERM TYPE (term type)

The user must correct the input and reenter the add action.

o. THE FOLLOWING SUBSTITUENT TERM IS ALREADY ON FILE AS TYPE (term type)

The user must correct the input and enter a change term action.

p. INVALID TERM IN INPUT

Either the base term or a substituent term did not begin with an alphabetic character. The user must correct the input and reenter the add action.

q. INPUT CONTAINS TWO ELEMENTS FOR (element code)

THE LAST WAS USED. THE FOLLOWING WAS BY-PASSED.

(element code, by-passed data)

The input contains either multiple base term or multiple term types. The last entry is used.

25. OOPS

The user should immediately contact the responsible programmer/analyst.

26. OOP1

The user should immediately contact the responsible programmer/analyst.

27. THIS CHANGE WAS NOT COMPLETE

TRANSACTION TERMINATED

These messages will appear with some of the preceding messages. The user should display the term record noting which changes were processed. The action should be entered with corrections where applicable.

28. SUBTERM NOT ON FILE

The action is terminated. The user should immediately contact the responsible programmer/analyst.

29. LANGUAGE REC HAS MORE THAN 15 OVERFLOWS CANNOT PROCESS

The action is terminated. The user should contact the responsible programmer/analyst.

30. CANNOT CHANGE L02 IF SUB TERMS ARE PRESENT

31. ERROR -- CHANGE OF SUBTERMS NOT ALLOWED

The action is processed by-passing the request to change L02.

32. a. 46 ACTION -- COMMENTS, LC TABLEOVERFLOW

b. 46 ACTION -- XREF TABLEOVERFLOW

c. 46 ACTION -- MORE THAN 15 LANG OVERFLOWS

d. LANGUAGE REC HAS MORE THAN 15 OVERFLOWS CANNOT PROCESS

The action is terminated. The user should contact the responsible programmer/analyst.

33. TERM (base term)

CANNOT BE CHANGED TO ITSELF

The user should check the input.

34. CHANGE BASE TERM -- ADD BOOK XREF WAS NOT COMPLETED

Change base term transaction was not completed. User should contact the responsible programmer/analyst.

35. TERM (term)

TERM LENGTH IS TOO SHORT

User should contact the responsible programmer/analyst.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- B4 - Invalid key on Term record
- ERRBK - 'B' is not the status code associated with the book address
- LBWW - Invalid key on write Term-overflow record
- LB01 - Invalid ID in Language Statistics record
- LB02 - Input exceeds 230 characters but there is no overflow address
- LB03 - Input has overflowed more than once but there is no overflow address
- LB1 - Invalid key on write Language Statistics record
- LB2 - Invalid key on read Tswork record
- LB3 - Invalid key on write Language Prime 2 record
- LB4 - Invalid key on Term record
- LB5 - Invalid key on write Term record
- LB6 - Invalid key on New Terms record
- LB7 - Invalid key on read Language Prime 1 record
- LCDLT - Invalid ID in or invalid key on Delete Term record
- LC01 - Term is not on file
- LC02 - The base term is not cross-referenced to the cross-reference term record.
- LC03 - Invalid ID in Language Prime 2 record
- LC04 - The index address does not agree with the saved cross-reference term address.
- LC05 - Invalid term type change
- LC06 - Invalid key on Book Master record
- LC07 - Invalid ID in Book Master record
- LC08 - Invalid key on Term record
- LC09 - Invalid ID in Term record

- LC10 - Invalid key Language Prime 2 record
- LC11 - Base term is not on file
- LC12 - Term type is not valid
- LC13 - Invalid terms cannot have substituent term; one was found
- LC16 - The number of overflows exceeds the limits of this program
- LD01 - Invalid key on Book Master record
- LD02 - Invalid ID in Book Master record
- LD11 - Substituent and base term did not agree; cross-reference could not be deleted
- HELP - The program has branched to an invalid area; check for a program loop.
- LC30 - Invalid Key on Read Tswork record
- LC31 - Invalid Key on Write Tswork record

2.5.5 Delete Term - Action Code 45

This action deletes the term (subject heading) from the Language index. Cross-references to other terms and to books are deleted. An entry is posted to the delete term record for an off-line print of deleted terms.

The input consists of action code (45), slant bar, element code (L01) followed by the term to be deleted, slant bar, element code (L02) followed by the term type. The term is one to 70 alphanumeric characters. The term type is A (valid), B (see reference), D (invalid), or E (temporary) and must agree with the file entry.

Example: 45/L01ABACUS/L02A'#

The valid term ABACUS is deleted. If the valid term being deleted is the last substituent term on a see reference term record, the see reference term will also be deleted.

The output is the following message:

DELETE TRANSACTION PROCESSED

USER (DATA) ERROR MESSAGES

1. BASE TERM IS TOO LONG. FIRST 70 POSITIONS ACCEPTED

No user action required.

2. (error message a - e)
DELETE ACTION TERMINATED

a. (element code)---INVALID ELEMENT CODE FOR DELETE ACTION

The user must reenter the action with only the mandatory data.

b. (term type) IS AN INVALID TERM TYPE

The user must reenter the action with the valid term type.

c. INSUFFICIENT INPUT---ELEMENTS L01 AND L02 NEEDED

The user must reenter the action with the mandatory elements.

d. (term)

NOT ON FILE

The term being deleted is not on the file. The user should check the input for validity.

e. PERFORM A CHANGE ACTION TO DELETE COMMENTS or SUBTERMS UNTIL THIS TRANSACTION WILL PROCESS

The term record contains more than the maximum allowable 3468 characters of variable data. The user must delete comments, LC numbers, or substituent terms until there are fewer than 3468 characters of variable data.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

- LBSI - Invalid ID in Book Statistics record
- LBSK - Invalid key on read or write Book Statistics record
- LDSAD - Invalid key on write Delete Term record
- LDDID - Invalid ID in Delete Term record
- LDDLTL - Invalid key on read Delete Term record
- LDGC - Book generic code is not a space
- LD01 - Invalid key on read or write Book Master record
- LD02 - Invalid ID in Book Master record
- LD03 - Invalid key on read or write Term record
- LD04 - Invalid ID in Term record
- LD05 - Invalid key on read or write Language Statistics record
- LD06 - Invalid ID in Language Statistics record
- LD07 - Invalid key on read Twork record
- LD08 - Invalid ID in Twork record
- LD09 - Base term is not on the file
- LD10 - Maximum number of term record overflows is exceeded
- LD11 - Substituent term did not compare equal to the base term; not located
- LD12 - Book term type is not equal to the type requested at either the term or substituent term level
- LD14 - Base term is too long
- LD15 - Invalid key on read or write Language PRIME 2 record
- LD16 - Invalid ID in Language PRIME 2 record
- LD17 - Status of address for cross-referencing is not a 'B'

2.6 SERIALS SUBSYSTEM

The ALPHA II Serials Subsystem has been designed to operate within the framework of the RSIC online data processing system. The range of processing encompasses the functional activities of ordering, receiving, routing, binding, holdings, and claiming of those library items classified as periodicals or serials. Each related serial record group will be composed of header type data followed by as many of the different kinds of functional segments (in varying numbers) as is known and required for processing purposes. Master record (Header I) is required. Header II data is normally desired. The functional segments that follow the header data will trail in the computer in the following sequence: (1) order segments, (2) order notes, (3) receiving segments, (4) routing segments, (5) binding segments, (6) holdings segments, (7) volume lacks segments, (8) issue lack segments, (9) binding supplement segments, (10) binding notes segments, (11) index segments, (12) index holdings segments, (13) cross-reference segments, and (14) note segments.

The transactions codes are assigned in groups of three, reflecting delete, add, and change actions for each segment of a serials record. Within the transactions codes, certain element codes may be used. For complete descriptions of element codes, see Section 2.6.2. Element codes associated with each function are identified in the add action. Elements mandatory for a transaction are indicated by an asterisk (*).

All transactions will pass through the edit program and will be entered in the following manner:

TRANSACTION NUMBER/SERIAL ID NUMBER/ELEMENT CODE FOLLOWED BY ELEMENT/
ELEMENT CODE FOLLOWED BY ELEMENT/ETC/'#

The transaction number and serial ID number are required entries in all subsystem actions. The serial ID number has six numerics mandatory. The seventh character must be alpha, numeric, or spaces.

Optional elements within a segment may be deleted by using a change transaction code, the serial ID number, the element code and a "\$" after the element code. This replaces the information within that element with a "blank".

A breakdown by action codes and functions is as follows:

<u>Action Code</u>	<u>Functions</u>
801 - 804	Controls basic record
805 - 807	Vendor record
808 - 810	Maintains orders
811 - 813	Receiving
814 - 816	Routing
817 - 819	Binding
820 - 822	Holdings
823 - 825	Volume lacks
826 - 828	Issue lacks
829 - 831	Binding supplement
832 - 834	Order notes
835 - 837	Index data
838 - 840	Index holdings
841 - 843	Cross references
844 - 846	Miscellaneous notes
847 - 849	Binding notes
850	Change routing
851	Change serial ID

2.6.1 Transactions

2.6.1.1 Delete Serials - 801

The 801 transaction is used to delete an entire serial record.

EXAMPLE: 801/243567/'#

This action would delete serial-ID 243567.

2.6.1.2 Add Serial Record (Header I) - 802

This action creates a serial Header I record.

The following elements are used to add a new serial record. Mandatory items are indicated by *.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S01	title	1-150 A/N characters
*S02	frequency	2 numerics (1-99)
*S03	type	J, N, S, or C
S04	receiving pattern	must be 3 numbers
S05	active	A or I
S06	purpose	L, C, D, R
S07	special code	1, 2, 3, 4, 5, 6
S08	binding	B, C, U, M
S09	translated edition	Y or N
S10	publisher's name	1-74 A/N characters
S13	language	see Section 2.6.2
S20	post holdings authomatically	N or Y

EXAMPLE:

802/375428/S01AMERICAN JOURNAL/S0201/S03J/'#

2.6.1.3 Change Serials Record (Header I) - 803

This transaction changes elements of data in the Header I record. Any data element in Header I except the serial-ID may be updated using the '803' transaction.

EXAMPLE:

803/247363/S01HUBER JOURNAL/S03S/'#

2.6.1.4 Add Change Header II - 804

The Header II record is established after the '802' action is processed. Only the '804' transaction adds or changes the Header II record.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
S11	publisher's street	1-45 A/N characters
S12	country of origin	3 alpha characters
S26	Price	1-7 numerics
S60	publisher's city state	1-55 A/N characters
S77	catalog location	1 alpha character

EXAMPLE:

804/247363/S11240 W.HOBBS/S60ATHENS,ALA/S263200/

2.6.1.5 Delete Vendor - 805

This deletes the vendor from the file. The vendor code is preceded by five 9's.

EXAMPLE: 805/9999903/'#

2.6.1.6 Add Vendor - 806

This adds new vendors to vendor table. Prior to adding a new vendor, the vendor table should be reviewed to avoid duplication.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	vendor code	99999NN (NN is an alphanumeric 2-digit vendor number)
*S63	type vendor	must be B, P or R (blanket, purchase order or requisition)
*S64	vendor name	1-50 A/N characters
*S65	vendor street	1-35 A/N characters
*S66	vendor city, state	1-45 A/N characters
S30	DO number	must be 3 numeric digits
S31	item number	must be 4 numeric digits
S54	purchase order number	must not exceed 7 positions
S55	requisition number	10 positions
S56	RSIC or TL number	10 positions
S62	note	1-120 A/N characters

EXAMPLE:

806/9999903/S63P/S64HUBER INC./S65507 HUBER ROAD/S66ELKMONT AL/'#

Vendor 03 would be added to the vendor file.

To review vendor table input 'MR/200859 chain '#'

To display specific vendor, see Section 2.6.6.

2.6.1.7 Change Vendor - 807

This is used to update any data on the vendor record.

EXAMPLE: 807/9999903/S65507 HUBER ROAD/'#

2.6.1.8 Delete Order - 808

This deletes an order and its corresponding receiving segments from the serial record. Sequence number is required to indicate order segment.

EXAMPLE: 808 247362/S24001/'#

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*S24	sequence number	3 numeric

2.6.1.9 Add Order - 809

This adds an order and its receiving segments to a serial record.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numerics mandatory; 7th is alpha, numeric or space
*S23	addressee code	must be 2 digits from address table
*S25	vendor code (see note below)	must be 2 numeric
*S26	price	1-7 numeric digits
*S27	copies	1-3 numeric
*S28	begin date	must be 6 numerics (MMDDYY)
*S29	enddate	must be 6 numerics (MMDDYY)
S24	sequence number	must be 3 numerics
S30	delivery order number	must be 3 numerics
S31	item number	must be 4 numerics
S54	purchase order number	7 A/N
S55	requisition number	10 A/N
S56	RSIC or TL number	10 A/N
S78	volumes ordered	1-12 A/N characters

S76

date order printed
field (see note below)

current date or \$
results in 000000

DO number, PO number, or requisition number must agree with type of vendor.

NOTE: No input results in no data for this field.

NOTE: An order is printed when no data is present in date order printed field. The current date is in this field for all vendor code '00' orders.

2.6.1.10 Change Order - 810

810 is used to change an order segment. Any elements other than sequence number may be updated using this action. The sequence number is required.

EXAMPLE: 810/247362/S24002/S78V24/'#

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*S24	sequence number	must be 3 numeric

If the vendor code is changed to 00 using the 810, the order is dated and the status code is not incremented.

2.6.1.11 Delete Receiving Segments - 811

This action deletes a receiving segment.

EXAMPLE: 811/247362/S24002/'#

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*S24	sequence number	must be 3 numerics

2.6.1.12 Add Receiving Segments - 812

This action adds a receiving segment to a serial record.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S27	number of copies ordered	1-3 numerics
*S33	order ID number	must be 3 numerics
S24	sequence number	must be 3 numerics

S57

no. of segments

must be 2 numeric
digits

Normally the RSIC Serial Subsystem provides the receiving segments depending on the frequency in Header I.

EXAMPLE:

812/247362/S24012/S33012/S6702/S27001/'#

2.6.1.13 Change Receiving Segment - 813

813 action provides change capabilities for the receiving segments. Sequence number is required. Any other receiving segment data elements may be updated.

EXAMPLE: 813/247362/S24001/S273/'#

2.6.1.14 Delete Routing Segment - 814

814 is used to remove a routing segment from the serial record. The sequence number is required.

EXAMPLE: 814/243763/S24001/'#

2.6.1.15 Add Routing Segment - 815

This adds a routing segment to the serials record and the patron's record. This is normally handled in circulation area.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S39	social security no.	9 numeric
S38	route position	1 or 0 1 = copy circulated to only one patron 0 = copy circulated to several patrons

2.6.1.16 Change Routing Segment - 816

816 action code changes the routing segments. Sequence number is required.

EXAMPLE: 816/247369/S24001/S381/'#

Routing segment 1 was changed. There is now special routing for the patron on segment 1.

2.6.1.17 Delete Binding Segment - 817

817 action deletes the binding segment.

EXAMPLE: 817/361312/'#

2.6.1.18 Add Binding Segment - 818

818 provides the capability to select a schedule for binding and provide information for binding.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S16	binding schedule	must be 12 zeros - one for each month Jan. - Dec. except binding month which is indicated by a 1.
S17	volumes/subscriptions	must be 2 numeric digits
S18	issue/volumes	must be 2 numeric digits
S19	volume/year	must be 2 numeric digits
S21	size	1-15 alphanumeric
S40	color	must be 4 characters
S69	title page & contents	must be 1, 2, 3, or 4
S70	issue contents	must be 1 or 2
S71	index code	must be 1, 2, 3, 4, or 5
S72	covers	must be 1, 2, 3, or 4

S73	ads	must be 1, 2, 3, 4, or 5
S74	parts, supplements	must be 1 or 2
S75	letter color	must be B or G

EXAMPLE:

818/361312/S16001000000000/S408848/'#

2.6.1.19 Change Binding Segment - 819

819 action code is used to change the binding segment. Any data on binding segment may be updated.

2.6.1.20 Delete Holdings Segment - 820

820 action deletes a holding segment. The sequence number is required.

EXAMPLE:

820/247361/S24001/'#

2.6.1.21 Add Holding Segments - 821

This is used to add holding segments. Posting of unbound holdings is also handled through automatic post holdings in a monthly batch production run.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	2 numerics from addressee code table
*S42	type holdings	1 alpha-(code in Section 2.6.2)
*S43	begin ID	see Section 2.6.4.2
S24	sequence number	3 numerics
S44	end ID	see Section 2.6.4.2
S45	inventory indicator	'I' to indicate date

2.6.1.22 Change Holdings Segment - 822

822 replaces data on holdings segment. The sequence number is required.

EXAMPLE:

822/247362/S24001/S2301/S44,0032,1979/'#

2.6.1.23 Delete Volume Lacks Segment - 823

Volume Lacks are deleted using 823 action code with control number. The sequence number is required.

EXAMPLE:

823/472348/S24001/'#

2.6.1.24 Add Volume Lack Segments - 824

This action adds volume lack data to the serial record. It uses series, volume, issue, and year for data.

DATA ELEMENTS FOR VOLUME LACKS

<u>Element Code</u>	<u>Elements</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	must be 2 numerics from addressee code table
*S46	begin-ID	see Section 2.6.4.2
S24	sequence number	must be 3 numeric
S47	end-ID	see Section 2.6.4.2

EXAMPLE:

824/237362/S2301/S46,0041,1976/'#

2.6.1.25 Change Volume Lacks Segment - 825

This action changes addressee code, beginning-ID, or ending-ID. Sequence number is required.

825/237362/S24001/S2301/'#

The addressee code is updated in this example.

2.6.1.26 Delete Issue Lack Segment - 826

826 deletes an issue lack segment by sequence number.

EXAMPLE:

826/376210/S24001/'#

2.6.1.27 Add Issue Lack Segments - 827

This action adds segments indicating a missing issue from a volume to the serial record. Date of action is automatically added to file.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	must be 2 numeric from addressee code table
*S50	ID prefix	see Section 2.6.4.2
*S51	missing issue ID #1	see Section 2.6.4.2
S24	sequence number	must be 3 numeric
S51	missing issue ID #2-14	see Section 2.6.4.2.

EXAMPLE:

827/S24002/S2301/S500001,0075,1980/S510001,0004/'#

2.6.1.28 Change Issue Lack Segments - 828

828 changes data on issue lack segments. Sequence number is required.

EXAMPLE:

828/376210/S24001/S510001,0004/'#

before change example: 0001,0003

after change example: 0001,0004

2.6.1.29 Delete Binding Supplement Segment - 829

829 action is used to delete a binding supplement segment. Control number and sequence number are required.

EXAMPLE:

829/004500/S24001/'#

2.6.1.30 Add Binding Supplement Segment - 830

830 action adds binding supplement segment to serial file. Each addressee code requires a separate sequence.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	must be 2 numeric from addressee code table
S24	sequence number	must be 3 numerics
S41	bound for	1-19 alphanumeric (use from addressee code table only)

EXAMPLE:

830/243763/S2301/S41RSIC4484/'#

2.6.1.31 Change Binding Supplement Segment - 831

831 is used to change data on a binding supplement segment. Sequence number is required. Any data except sequence may be changed.

EXAMPLE:

831/243763/S24001/S2301/'#

2.6.1.32 Delete Order Notes - 832

832 action deletes an order note from the serial record. Sequence number is required.

EXAMPLE:

832/243600/S24001/'#

2.6.1.33 Add Order Notes - 833

Order notes are added using the 833 action code.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	must be 2 numerics from addressee code table
*S57	order note	1-71 alphanumeric
*S33	order-ID	must be 3 numerics
S24	sequence number	must be 3 numerics

EXAMPLE:

833/243761/S2301/S33012/S57 THIS IS AN ORDER NOTE/'#

2.6.1.34 Change Order Notes - 834

834 is used to update data in existing order notes. Sequence number is required. All elements except sequence number may be updated.

EXAMPLE:

834/243761/S24001/S57May have only 7 issues in some volumes/'#.

2.6.1.35 Delete Index Data Segment - 835

835 action deletes index data segment by sequence number.

EXAMPLE:

835/243017/S24001/'#

2.6.1.36 Add Index Data Segment - 836

836 action adds index data segments to the serial record. The index segment provides index information.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	must be 2 digits from addressee code table
*S58	Index data	1-71 alphanumeric

S24

sequence number

must be 3 digits

EXAMPLE:

836/241302/S2301/S58 INDEX VOLUME IS LOOSE LEAF/'#

2.6.1.37 CHANGE INDEX DATA - 837

837 ACTION UPDATES INDEX DATA. SEQUENCE NUMBER IS REQUIRED. CODE AND INDEX INFORMATION MAY BE UPDATED.

EXAMPLE:

837/243121/S24001/S2302/S58INDEX NOT FOUND/'#

2.6.1.38 DELETE INDEX HOLDINGS SEGMENTS - 838

838 deletes index holding segment. Sequence number is required.

EXAMPLE:

838/243102/S24003/'#

2.6.1.39 Add Index Holdings Segment - 839

839 action adds index holdings segments to the serial record.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	must be 2 numerics from addressee code table
S61	Index holdings	1-71 alphanumeric
S24	sequence number	must be 3 numerics

EXAMPLE:

839/243102/S2301/S61 HAVE BOUND ANNUAL INDEX FOR 1980/'#

2.6.1.40 Change Index Holdings Segment - 840

840 updates index holding segment. Sequence number is required.

EXAMPLE:

840/241030/S24001/S61 INDEX LOST/'#

2.6.1.41 Delete Cross-Reference Title - 841

This deletes cross-reference titles by sequence number.

EXAMPLE:

841/230102/S24001/'#

2.6.1.42 Add Cross-Reference Segments - 842

This action cross-references serial titles with appropriate codes.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S52	reference code	must be 1 alpha (see table below)
*S53	reference title	1-150 characters
S24	sequence number	must be 3 numeric digits

EXAMPLE:

842/243763/S52C/S53HUBER FARM JOURNAL/'#

REFERENCE CODES:

A also in
C currently
F formerly in
P superseded
R see translation
S see
T continued as

2.6.1.43 Change Cross-Reference Title - 843

This updates cross-reference titles. Sequence number is required. The cross-reference code and cross-reference titles may be updated.

EXAMPLE:

843/210375/S24001/S52C/S53FARM JOURNAL OF ELKMONT/'#

2.6.1.4 Delete Miscellaneous Note Segment - 844

844 deletes the miscellaneous note. Sequence number is required.

EXAMPLE:

844/210103/S24001/'#

2.6.1.45 Add Miscellaneous Note - 845

845 action adds miscellaneous notes to a serial record.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S48	note ID number	must be 2 numerics
*S49	note	100 alphanumeric
S24	sequence number	must be 3 numerics

EXAMPLE:

845/310790/S4801/S49NC PRICE APPEARS ON JOURNAL/'#

2.6.1.46 Change Miscellaneous Note Segment - 846

846 updates the miscellaneous note segment. Sequence number is required.

EXAMPLE:

846/310799/S24001/S49 CHECKED PUBLISHERS NOTICE FOR PRICE/'#

2.6.1.47 Delete Binding Note - 847

847 deletes binding note by sequence number.

EXAMPLE:

847/210302/S24001/'#

2.6.1.48 Add Binding Notes Segment - 848

848 action adds binding note segments to the serial record.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID	6 numeric
*S23	addressee code	2 digits from addressee table
*S59	binding note	1-71 alphanumeric
S24	sequence no.	must be 3 numerics

EXAMPLE:

848/210107/S2301/S59KEEP CURRENT AND ONE YEAR PRICE/'#

2.6.1.49 Change Binding Note - 849

849 is used to change existing binding notes by sequence numbers. Addressee codes and binding notes may be updated.

EXAMPLE:

849/210304/S24001/S59 ORDER 16MM NEGATIVE FILM ANNUALLY/'#

2.6.1.50 Change Routing - 850

850 action changes all routing from one serial record to another.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID (from)	6 numeric
*S79	serial-ID (to)	6 numerics mandatory, 7th is alpha, numeric or space

EXAMPLE:

850/210304/S79324570/'#

2.6.1.51 Change Control Number - 851

851 is used to change an old serial-ID number to a new.

<u>Element Code</u>	<u>Element</u>	<u>Description</u>
*	serial-ID (old)	6 numeric
*S79	serial-ID (new)	6 numerics mandatory 7th is alpha, numeric or space

EXAMPLE:

851/241013/S79073912/'#

241013 is old serial-ID number.

073912 is new serial-ID number.

2.6.2 Element Codes

The following list includes all valid element codes and the data requirements (editing feature) of the corresponding element.

<u>ELEMENT CODE</u>	<u>DATA REQUIREMENTS</u>
S01 - TITLE	Must not exceed 150 characters; multiple blanks will be reduced to one blank.
S02 - FREQUENCY	Must be numeric in range of 01 to 99. 99 generates no recurring segments. 99 is used if no copies are to be received or routed, such as dailies.
S03 - TYPE	Must be one of the following codes: J - journals N - newspapers S - service items C - serials
S04 - RECEIVING PATTERN	Must be 3-character receiving pattern code; the first will be a minus sign or will be numeric, followed by 2 numerics
S05 - ACTIVE/INACTIVE	Must be: A - active; I - inactive.
S06 - PURPOSE	Must be one of the following codes: L - used for library purposes only C - available for circulation D - subscription sent directly to addressee reflected R - received at library but all copies may be routed.

S07 - SPECIAL CODE

Must be one of the following codes:

- 1 - active titles not to be ordered. (Title will not appear on renewal review list. Routers will be made.)
- 2 - active titles not to be routed. (Routers will not be created.)
- 3 - active titles not to be ordered or routed. (Title will not appear on Renewal Review List. Routers will not be created.)
- 4 - active titles not to be published on the title list. (Routers will be created.)
- 5 - active titles to be routed in parts. (Routers will be created.)
- 6 - not routed; information to go only on title list; will not affect routing. \neq or \emptyset - routers will be created.

S08 - BINDING CODE

Indicates final format in which material is retained. Must be one of the following codes:

- B - bound
- C - consider (final format not yet decided)
- U - unbound
- M - microform

S09 - TRANSLATED EDITION

Must be: Y - yes; N - no.

S10 - PUBLISHER'S NAME

Must not exceed 74 characters; multiple blanks will be reduced to one blank.

S11 - PUBLISHER'S STREET

Must not exceed 45 characters;
multiple blanks will be reduced
to one blank.

S12 - COUNTRY OF ORIGIN

Must be 3 characters found in
program table; usually the
first 3 characters in country's
name.

***CHANGES TO COUNTRY OF ORIGIN TABLE MUST BE MADE BY A PROGRAMMER**

S13 - LANGUAGE CODES

Up to 5 languages may be input.
Must be one of the following
codes:

AF - Afrikaans

CH - Chinese

CZ - Czech

DA - Danish

DU - Dutch

EN - English

FI - Finnish

FR - French

GE - German

GR - Greek

HU - Hungarian

IT - Italian

JA - Japanese

NO - Norwegian

PO - Polish

PR - Portugese

RO - Rumanian

RU - Russian

	SE - Serbian
	SP - Spanish
	SW - Swedish
S14 - PROGRAM STATUS CODES	** FOR PROGRAMMER **
S15 - PROGRAM COUNTERS	** FOR PROGRAMMER **
S16 - BINDING SCHEDULE	Must be 12 digits. Each digit represents a month, with the first being January and the last being December. The months for binding review will be entered by the digit '1' while the other months will be entered by the digit '0'.
S17 - VOLUMES/SUBSCRIPTION	Must be 2 numeric digits.
S18 - ISSUES/VOLUME	Must be 2 numeric digits.
S19 - VOLUMES/YEAR	Must be 2 numeric digits.
S20 - HOLDINGS POSTED AUTOMATICALLY	Must be N - no.
S21 - SIZE	Must not exceed 15 characters.
S22 - *NOT USED*	
S23 - ADDRESSEE CODE	2 numeric digits to match table entry.

Attention lines are listed as:

01 RSIC 4484	06 GORGAS LIB 7770
02 PROPULSION LIB 7120	07 RSIC 4484 DOCUMENT SECTION
03 AMSMI-RE-RLL LIB 5400	08 RSIC 4484 DOCUMENT ACQUISITIONS
04 S&E-ASTN-M LIB 4612	09 RSIC 4484 DDC
05 LIBRARY 4200	99 RSIC 4484 (SAME AS 01) - USED IF ROUTERS AND RECEIVING SEGMENTS ARE NOT NEEDED FOR AN ORDER SUCH AS FILM ORDERS.

CHANGES TO ADDRESSEE CODE TABLE MUST BE MADE BY A PROGRAMMER

S24 - SEQUENCE NUMBER	Must be 3 Numeric digits. (If not designated on an "add" transaction, sequence 001 is assumed.)
S25 - VENDOR CODE	Must be 2 digits (alpha or numeric).
S26 - PRICE	Must be numeric; must not exceed 7 digits.
S27 - NUMBER OF SUBSCRIPTIONS OR COPIES ORDERED	Must be numeric; must not exceed 3 digits.
S28 - SUBSCRIPTION BEGIN DATE	Must be 6 digits (MMDDYY).
S29 - SUBSCRIPTION END DATE	Must be 6 digits (MMDDYY).
S30 - DELIVERY ORDER NUMBER	Must be 3 digits.
S31 - ITEM NUMBER	Must be 4 digits.
S32 - ATTENTION LINE	Will be added, changed or deleted through addressee code (S23).
S33 - ORDER ID NUMBER	Must be 3 numeric digits.
S34 - RECEIVING STATUS	See Section (2.6.4.3).
S35 - RECEIPT DATE	Must be 6 digits (MMDDYY).
S36 - COPIES RECEIVED	Must be numeric not exceeding 3 digits. Change will change S34.
S37 - ISSUE ID NUMBER	Must not exceed 16 characters; blanks will be removed. See Section 2.6.4.2.
S38 - ROUTE POSITION	Must be one of the following codes: 1 - only patron for a copy 0 - no special routing
S39 - SOCIAL SECURITY NO.	Must be 9 numeric digits.
S40 - COLOR	Must be 4 characters.
S41 - BOUND FOR	Must not exceed 19 characters; multiple blanks will be reduced to one blank. Use attention lines as shown in S23.

S42 - TYPE OF HOLDINGS	Must be one of the following codes:
	B - bound
	C - microcards
	F - microfilm
	M - microfiche
	U - unbound
S43 - BEGINNING HOLDINGS ID	See Section 2.6.4.2.
S44 - ENDING HOLDINGS ID	See Section 2.6.4.2.
S45 - INVENTORY INDICATOR	Code must be 'I'.
S46 - BEGINNING VOLUME LACK (ID)	See Section 2.6.4.2.
S47 - ENDING VOLUME LACK (ID)	See Section 2.6.4.2.
S48 - NOTE ID NO.	Must be 2 numeric digits.
S49 - NOTE	Must not exceed 100 characters; multiple blanks will be reduced to one blank.
S50 - PREFIX OF MISSING ISSUES (ID)	See Section 2.6.4.2.
S51 - MISSING ISSUE ID'S	See Section 2.6.4.2.
S52 - REFERENCE CODE	Must be one of the following codes:
	A - also in
	C - currently
	F - formerly in
	P - superseded
	R - see translation
	S - see
	T - continued as
S53 - CROSS-REFERENCE TITLE	Must not exceed 150 characters; multiple blanks will be reduced to one blank.

S54 - PURCHASE ORDER NO.	Must not exceed 7 positions; all blanks will be removed.
S55 - REQUISITION NO.	Must not exceed 10 positions; all blanks will be removed. NNNNNN6100 (Julian date plus 2 numerics inserted by computer upon placing order plus constant 6100)
S56 - TL (RSIC) NO.	Must not exceed 10 positions; all blanks will be removed.
S57 - ORDER NOTE	Must not exceed 71 characters; multiple blanks will be reduced to one blank.
S58 - INDEX DATA	Must not exceed 71 characters; multiple blanks will be reduced to one blank.
S59 - BINDING NOTE	Must not exceed 71 characters; multiple blanks will be reduced to one blank.
S60 - PUBLISHER CITY, STATE	Must not exceed 55 characters; multiple blanks will be reduced to one blank.
S61 - INDEX HOLDINGS DATA	Must not exceed 71 characters; multiple blanks will be reduced to one blank.
S62 - VENDOR ORDER NOTE	Must not exceed 120 characters; multiple blanks will be reduced to one blank.
S63 - TYPE VENDOR	Must be one of the following codes: B - blanket P - purchase order (use only for contract vendor) R - requisition
S64 - VENDOR NAME	Must not exceed 50 characters; multiple blanks will be reduced to one blank.

S65 - VENDOR STREET Must not exceed 35 characters;
multiple blanks will be reduced
to one blank.

S66 - VENDOR CITY, STATE Must not exceed 45 characters;
multiple blanks will be reduced
to one blank.

S67 - NUMBER OF RECEIVING SEGMENTS
 TO BE ADDED Must be 2 numeric digits.
(Use when more than one segment
is desired.)

S68 - OPEN

S69 - TITLE PAGE AND CONTENTS Must be one of the following
codes:

- 1 - separate
- 2 - not published
- 3 - stub for
- 4 - bind without

S70 - ISSUE CONTENT Must be one of the following
codes:

- 1 - bind in place
- 2 - bind in front

S71 - INDEX CODE Must be one of the following
codes:

- 1 - bind in front
- 2 - bind in back
- 3 - not published
- 4 - bind without
- 5 - stub for

S72 - COVERS Must be one of the following
codes:

- 1 - remove all
- 2 - bind in all
- 3 - bind in first cover only

S73 - ADS

4 - bind in front cover only

Must be one of the following codes:

1 - remove all

2 - leave in all

3 - remove all ads not having text

4 - bind all ads in back of volume

5 - ads with text bind in place

S74 - PARTS AND SUPPLEMENTS

Must be one of the following codes:

1 - bind in place

2 - bind in back of volume

S75 - LETTER COLOR

Must be one of the following codes:

B - black

G - gold

S76 - DATE ORDER PRINTED

If used current date will be assigned. A '\$' after S76 deletes date, leaving 000000. Must be all zeros if order is to print.

S77 - CATALOG LOCATION

Must be one of the following:

'A' - Acquisitions

'B' - Abstracts - No subscriptions

'C' - Shelved in abstracts

'D' - Shelved on 2nd floor

'E' - Library no longer subscribes

'F' - Current only kept

'G' - Shelved on 2nd floor - No
subscriptions

'H' - Shelved on 2nd floor -
Abstract - No
subscriptions

'I' - Abstracts - Current only

'K' - Catalogers

'R' - Reference

'S' - Serials

'T' - Translations

'V' - Documents

CHANGES TO LOCATION CODE TABLE MUST BE MADE BY PROGRAMMER

ONLY CODES B,C,D,E,F,G,H AND I PRINT INFORMATION IN THE PERIODICALS

S78 - VOLUMES ORDERED

12 - Alphanumeric characters
(left-justified, multiple
blanks reduced to one)

S79 - SERIAL ID NO.

Must be 6 numerics followed by
one space, an alphabetic or
numeric character.

2.6.3 Messages

2.6.3.A User (Data) Error Messages - Edit

1. *** INCOMPLETE TX CODE
2. *** FREQUENCY IS NOT NUMERIC
3. *** FIELD ID IS INVALID
4. *** MUST HAVE VALID TX AND CNT NOS
5. *** TYPE CODE IS INVALID
6. *** ACTIVE - INACTIVE CODE INVALID
7. *** PURPOSE CODE IS INVALID
8. *** TRANSLATED EDITION CODE INVALID
9. *** VOL PER SUBSCRIPTION NOT NUMERIC
10. *** ISSUES PER VOL NOT NUMERIC
11. *** VOL PER YEAR NOT NUMERIC
12. *** ADDRESSEE CODE NOT NUMERIC
13. *** SEQ NUMBER NOT NUMERIC
14. *** PRICE IS NOT NUMERIC
15. *** SUBSCRIPTION NR NOT NUMERIC
16. *** SUB BEGIN DATE NOT NUMERIC
17. *** DELIVERY ORDER NO NOT NUMERIC
18. *** ITEM NUMBER NOT NUMERIC
19. *** ORDER ID NOT NUMERIC
20. *** RECEIVE DATE NOT NUMERIC
21. *** NUMBER OF COPIES NOT NUMERIC
22. *** SSN NOT NUMERIC
23. *** TYPE HOLDINGS CODE INVALID
24. *** INVENTORY INDICATOR INVALID
25. *** NOTE ID NOT NUMERIC

- 26. *** CROSS REFERENCE CODE INVALID
- 27. *** SPECIAL CODE INVALID
- 28. *** TITLE IS REQUIRED FOR TX
- 29. *** FREQUENCY IS REQUIRED FOR TX
- 30. *** REQUIRED FIELD MISSING - TYPE
- 31. *** REQUIRED FIELD MISSING - BINDING NOTE
- 32. *** REQUIRED FIELD MISSING - BINDING SCHEDULE
- 33. *** REQUIRED FIELD MISSING - SEQ NR
- 34. *** REQUIRED FIELD MISSING - ADDRESSEE
- 35. *** REQUIRED FIELD MISSING - VEN CODE
- 36. *** REQUIRED FIELD MISSING - PRICE
- 37. *** REQUIRED FIELD MISSING - NO COPIES
- 38. *** REQUIRED FIELD MISSING - BEGIN DATE
- 39. *** REQUIRED FIELD MISSING - END DATE
- 40. *** REQUIRED FIELD MISSING - ORDER ID
- 41. *** REQUIRED FIELD MISSING - SSN
- 42. *** REQUIRED FIELD MISSING - TYPE HOLD
- 43. *** REQUIRED FIELD MISSING - BEGIN ID
- 44. *** REQUIRED FIELD MISSING - END ID
- 45. *** REQUIRED FIELD MISSING - 1ST MISSING VOL
- 46. *** REQUIRED FIELD MISSING - ID PREFIX
- 47. *** REQUIRED FIELD MISSING - MISSING ISSUES
- 48. *** REQUIRED FIELD MISSING - REORDER NOTE
- 49. *** REQUIRED FIELD MISSING - INDEX DATA
- 50. *** REQUIRED FIELD MISSING - INDEX HOLD DATA
- 51. *** REQUIRED FIELD MISSING - CROSS REF CODE
- 52. *** REQUIRED FIELD MISSING - CROSS REF TITLE

- 53. *** REQUIRED FIELD MISSING - NOTE ID
- 54. *** REQUIRED FIELD MISSING - NOTE
- 55. *** MULTI FIELD TOO SHORT
- 56. *** REQUIRED FIELD MISSING - TYPE VENDOR
- 57. *** REQUIRED FIELD MISSING - VENDOR NAME
- 58. *** REQUIRED FIELD MISSING - VENDOR STREET
- 59. *** REQUIRED FIELD MISSING - VEN CITY, STATE
- 60. *** REQUIRED FIELD MISSING - S38 POSITION
- 61. *** INVALID LOCATION CODE
- 62. *** INVALID RECEIVING PATTERN
- 63. *** INVALID BINDING CODE
- 64. *** 801 TNX IS TOO LONG
- 65. *** S79 NOT PRESENT FOR ROUTING CHANGE

2.6.3.B User (Data) Error Messages - Update

1. TRANSACTION CODE NOT VALID
2. BAD INITIAL PRIME ADDRESS
3. UNABLE TO FIND ENTRY IN PRIME INDEX
4. SECONDARY - INDEX ADDRESS INCORRECT
5. UNABLE TO FIND ENTRY IN SECD INDEX
6. CTL NR NOT IN SECONDARY INDEX
7. FILE ALREADY CONTAINS CTL NR.
8. INVALID NEXT AVAILABLE ADDRESS
9. INCORRECT DATA ADDRESS
10. ZERO CHAIN FOUND PRIOR TO DATA END
11. BAD PRIME INDEX ADDRESS
12. INVALID ADDRESS
13. SEGMENT NOT IN FILE
14. REPLACE ERROR
15. BAD INITIAL VENDOR ADDR
16. VENDOR NOT IN FILE
17. VENDOR ALREADY IN FILE
18. WRITE BELOW START OF FILE
19. SEQUENCE NO TOO LARGE
20. BINDING SEG PRESENT ___ CANNOT ADD
21. ERROR ___ FREQ IS ZERO
22. **NO WORK FILE**
23. **BAD WORK CHAIN**
24. WRITE ERROR1
25. WRITE ERROR2
26. WRITE ERROR3

27. BAD INITIAL PRIME ENTRY - SEC ENTRY
28. ***** TX ERROR KICKOUT
29. AVAILABLE ADDRESS ERROR
30. 'PRIME UPDATE ERROR'
31. 'BAD1 JSTKEY STORE'
32. 'BAD ADDRESS - CHAIN'
33. 'ID NOT D'
34. NO ROUTING PRESENT---NO CHANGE

2.6.3.C User (Data) Error Messages - File Maintenance - Part II

1. ... SEQ 999 (SSN) (PATRON NAME)
2. HAS NO ROUTING SEGMENTS---DELETE THE NEW ENTRY
3. PATRON RECORD IS INVALID---BASE ADDR-(ADDR)
4. DISCREPANCIES BETWEEN PATRON AND SERIALS FILES
5. ADDR (ADDR) SERIAL (Serial) (TNX) (ERROR MSG)

ERROR MSG

- A. WRITE ERROR1
- B. WRITE ERROR3
- C. READ KEY ERROR
- D. WRITE KEY ERROR
- E. CONTROL NO IN ERROR

When Message 5 is received, call a programmer.

2.6.4 Note Section

2.6.4.1 Delete Element

Elements which are not mandatory may be deleted by following the element code with a dollar sign (\$) using a change transaction code. If a \$ is used after the following element codes, the \$ itself will appear in place of existing data.

S01	S16	S38	S47	S58	S64
S04	S21	S40	S49	S59	S65
S10	S25	S41	S50	S60	S66
S11	S32	S43	S51	S61	S67
S14	S34	S44	S53	S62	
S15	S37	S46	S57	S63	

2.6.4.2 Rules For Identification of Volumes and Issues

1. Each field within an element which identifies volumes or issues is separated by a comma.
2. If the field is not to be changed, no data is required between the separating commas.
3. The formats are as follows:

S37 - Maximum 16 characters

	Series	Volume	Year	Issue	Part
	XX	X(4)	XX	X(4)	X(4)
EX:	14	0001	81	0010	PT01

S43 - Maximum 16 characters

	Series	Volume	Year	Issue
	X(4)	X(4)	X(4)	X(4)
EX:	0001	0001	1981	0004

S44 - Same as S43.

S46 - Same as S43.

S47 - Same as S43.

S50 - Maximum 12 characters;
same as S43 excluding ISSUE.

S51 - Maximum 4 characters.

Input to add or totally replace

0001,0003,0004 or 000100030004

Input to partially replace

0001,,0004

(000100020003 becomes 000100020004)

Input to partially delete

0001,\$,0003

(000100020003 becomes 00010003)

2.6.4.3 Receiving Status (834)

The receiving status reflects the relationship of copies ordered and copies received. This is normally done by the computer.

	<u>No Claim</u>	<u>Claim Issued</u>	<u>Received</u>
Number of copies received	0 or @	6 or A	12 or G
Some copies received	1 or [7 or B	13 or H
All copies received	2 or	8 or C	14 or I
More copies received than ordered	3 or #	9 or D	15 or J
	5 (no action taken)		

To explain the display transaction format the following sample transactions will be labeled and described:

Actual Transaction

SDY/SUB--ID,1,5-29,41,43-45+1,2,4-5+,46/1,3-5/,

47/2,4-6/+1,3-5+,49DS'#

Transaction Components Labeled for Description

SDY/SUB--ID,1,5-29,41,43-45+1,2,4-5+,46/1,3-5/,

47/2,4-6/+1,3-5+,49DS'#

- SDY/ - Serials Display Action code followed by a slash must always be the first 4 characters input.
- SUB--ID - Subscription identification number of the desired journal. The number input must be from 1 to 7 characters. If fewer than 7 characters are input the number will be left-justified with trailing blanks. (The current file is using a 6-digit number with one trailing blank.)
- A-G - Constant data elements or segments to be displayed (see Serials Display Codes Table).
- X-Y - Codes contained between plus signs indicate specific fields within segments (see Segment Field Codes Table). Such codes relate to the segment(s) preceding the first plus sign.
- M-N - Codes contained between slashes identify specific segments for a given segment type for which there is more than one segment. Such codes relate to the segment(s) preceding the first slash.
- Z - The letter D following a segment(s) produces a detailed (field-by-field) display of the data elements contained within the segment. If the D is not used the data elements within a segment are printed in a string.
- S'# - Each transaction must be terminated by this set of 3 characters.

2.6.5.1 Serials Display Codes Table

<u>CODE</u>	<u>FIELD</u>	<u>CODE</u>	<u>FIELD</u>
1	Initialization Date	26	# Order Segments
2	Title	27	# Cross-Reference Segments
3	Frequency	28	# Index Data Segments
4	Type	29	# Miscellaneous Notes Segments
5	Receiving Pattern	30	Date of Publisher's Address
6	Active/Inactive	31	Publisher's Address
7	Purpose	32	Date of Price
8	Special Codes	33	Price
9	Binding Code	34	Country of Origin
10	Translated Edition	35	Catalog Location
11	Date Publisher's Name Entered	36	Order Segment
12	Publisher's Name	37	Reorder Segment
13	Status	38	Receiving Segment
14	Language Codes	39	Routing Segment
15	Latest Order ID	40	Binding Segment
16	# Receiving Segments	41	Holdings Segment
17	# Routing Segments	42	Volume Lacks Segment
18	# Order Segments	43	Issue Lacks Segment
19	# Binding Segments	44	Binding Supplement Segment
20	# Binding Supplement Segment	45	Binding Notes Segment
21	# Binding Notes Segments	46	Index Data Segment
22	# Holdings Segments	47	Index Holdings Segment
23	# Index Holdings Segments	48	Cross-Reference Segment
24	# Volume Lacks Segment	49	Miscellaneous Notes Segment
25	# Issue Lacks Segments		

SEGMENT FIELD CODES TABLE

ORDER SEGMENT (36)

- 1 Addressee Code
- 2 Order Segment ID
- 3 Vendor Code
- 4 Subscription Price
- 5 Number of Subscriptions
- 6 Subscription Begin Date
- 7 Subscription End Date
- 8 Delivery Order Number
- 9 Item Number
- 10 Attention Line
- 11 Purchase Order Number
- 12 Requisition Number
- 13 TL (RSIC#)
- 14 Date
- 15 Volumes Ordered

ORDER SEGMENT (37)

- 1 Addressee Code
- 2 Order Segment ID
- 3 Order Note

RECEIVING SEGMENT (38)

- 1 Order Segment ID
- 2 Status Flag
- 3 Receipt Date
- 4 # Copies To Be Received
- 5 # Copies Received
- 6 Issue ID #

ROUTING SEGMENT (39)

- 1 Route Position
- 2 Social Security Number

BINDING SEGMENT (40)

- 1 Binding Schedule
- 2 Volumes/Subscription
- 3 Issues/Volume
- 4 Volumes/Year
- 5 Title Page Code
- 6 Issue Contents Code
- 7 Index Code
- 8 Covers Code
- 9 Ads Code
- 10 Parts Code
- 11 Split Volumes Code

- 12 Size
- 13 Color

HOLDINGS SEGMENT (41)

- 1 Addressee Code
- 2 Type Holdings
- 3 Begin Holdings ID
- 4 End Holdings ID
- 5 Inventory Indicator
- 6 Date

VOLUME LACKS SEGMENT (42)

- 1 Addressee Code
- 2 Beginning ID
- 3 End ID

ISSUE LACKS SEGMENT (43)

- 1 Addressee Code
- 2 Issue ID
- 3 Issue Lacks

BINDING SUPPLEMENT SEGMENT (44)

- 1 Addressee Code
- 2 Bound For

BINDING NOTES SEGMENT (45)

- 1 Addressee Code
- 2 Binding Note

INDEX DATA SEGMENT (46)

- 1 Addressee Code
- 2 Index Data

INDEX HOLDINGS SEGMENT (47)

- 1 Addressee Code
- 2 Index Holdings

CROSS-REFERENCE SEGMENT (48)

- 1 Reference Code
- 2 Reference Title

MISCELLANEOUS NOTES SEGMENT (49)

- 1 Note ID
- 2 Note

SAMPLE TRANSACTIONS

SDY/00007,2S'

---- S 00007 ----

TITLE

A N S I REPORTER

SDY/00005,48D\$'

---- S 00005 ----

... CROSS REFERENCE SEGMENT ...

01 REFERENCE CODE

S

REFERENCE TITLE

AIRCRAFT AND MISSILE BUYERS GUIDE

02 REFERENCE CODE

S

REFERENCE TITLE

AIR CRAFT BUYERS DIRECTORY

SDY/00005,2,3-6\$'

---- S 00005 ----

TITLE

A B D, AIRCRAFT AND MISSILES BUYERS
GUIDE

FREQUENCY

04

TYPE

J

RECEIVING PATTERN

ACTIVE-INACTIVE CODE

A

SDY/00005,48/2/S'

---- S 00005 ----
... CROSS REFERENCE SEGMENT ...
02 SAIR CRAFT BUYERS DIRECTORY

SDY/00005,36,48/2/+2+S'

---- S 00005 ----
... ORDER SEGMENT ...
01 01001010001000000101017012017064 0001RSIC 4484
57D0037
010171
... CROSS REFERENCE SEGMENT ...
02 REFERENCE TITLE AIR CRAFT BUYERS DIRECTORY

SDY/00005,2,30-31,48S'

---- S 00005 ----
TITLE A B D, AIRCRAFT AND MISSILES BUYERS
GUIDE
LAST ACTION ON PUB. ADDRESS 010181
PUBLISHER ADDRESS 211 EAST 43RD STREET
NEW YORK, NEW YORK 10017
... CROSS REFERENCE SEGMENT ...
01 SAIRCRAFT AND MISSILE BUYERS GUIDE
02 SAIR CRAFT BUYERS DIRECTORY

2.6.6 Serials Vendor Display

Display - Action Code SVD

The display program can be used to display any information stored on the Vendor Record. The allowable input formats are:

1. SVD/vendor code/ any number from 1 to 8/'#
2. SVD/A/any number from 1 to 8/'#
3. SVD/A/A/'#
4. SVD/vendor code/A/'# - A complete vendor record

With format 1 or 2 use a comma to separate each vendor field requested; otherwise, the first digit will be considered valid and the second, invalid.

The "A" option of 2 will display all the vendor records and any fields requested.

In format 3 the first "A" is the same as 2 above. The second "A" will display all fields of each vendor record.

Format 4 will display the vendor record requested and all fields.

The vendor code will always be the first field displayed for each transaction input. The code should be a two-character alphanumeric field. The fields in format 1 and 2 may be any of the following:

- 1 - Type
- 2 - Name
- 3 - Address
- 4 - Purchase Order Number
- 5 - Delivery Order Number
- 6 - TL (RSIC) Number
- 7 - Requisition Number
- 8 - Notes

If the vendor record type is a "P", the vendor record contains a purchase order number (4). If the type is a "B", the vendor record contains a blanket order number (6) and if the type is an "R", the record contains a requisition number (7).

Furthermore, if a request is made to display field "4" and the vendor record contains field "7", a message will be displayed telling the user that the vendor record does not contain a purchase order number but rather a requisition number, and the requisition number will be displayed. The same logic holds for a blanket order and/or requisition order. If either is requested and the vendor record does not contain what was requested an appropriate message will be displayed.

USER (DATA) ERROR MESSAGES

1. INVALID TRANSACTION

Input transaction has an incorrect action code. Correct and resubmit.

2. VENDOR CODE NOT ON FILE

Either the vendor code of the input transaction is not two alphanumeric characters or the vendor record is not on file. Check code and resubmit.

3. FIELD REQUESTED INVALID "X"

"X" is the incorrect field.

This message will be displayed if the input transaction contains:

- a. Any special characters other than a "%", "commas", "/", or "spaces".
- b. Any alphabetic character other than "A".
- c. An omission of a comma between any two fields.
- d. A number greater than the largest field.

4. XXXXXXXXXXXXXXX not present.

For any field requested that is not there.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

BAD PRIME-1 ADDRESS

INVALID VENDOR ADDRESS

VENDOR DISPLAY

SVD/05/1.3.4/??

-----**
VENDOR CODE 05**
TYPE P**
ADDRESS 525 CEDAR LANE
TEANECK NEW JERSEY 07666
PURCHASE ORDER 72-D-0009**
END OF TRANSACTIONS **

SVD/25/A/??

-----**
VENDOR CODE 25**
TYPE B**
NAME AVIATION STUDIES INTL LTD.
ADDRESS SUSSEX HOUSE, PARKSIDE
LONDON, SW 19 ENGLAND.
DELIVER ORDER NOT PRESENT**
BLANKET ORDER NOT PRESENT **
NOTES NOT PRESENT**
END OF TRANSACTIONS **

SVD/05/U.73.74/??

-----**
VENDOR CODE 05**
FIELD REQUESTED INVALID U**
ADDRESS 525 CEDAR LANE
TEANECK NEW JERSEY 07666
PURCHASE ORDER 72-D-UUC9**
END OF TRANSACTIONS **

SVD/AA/2.3.4/??

-----**
VENDOR CODE AA**
VENDOR NAME NOT PRESENT**
VENDOR ADDRESS NOT PRESENT**
PURCHASE ORDER NOT PRESENT
REQUISITION - -2238-02-6100**
END OF TRANSACTIONS **

SVD/74/2.35.8/??

-----**
VENDOR CODE 74**
NAME ZIFF-DAVIS PUB. ISHING CO. AVIATION DIVISION
ADDRESS 1156 15TH ST., N.W.
WASHINGTON, D.C. 20005
FIELD REQUESTED INVALID 5**
NOTES NOT PRESENT**
END OF TRANSACTIONS ** 2-243

2.6.7 Deleted Serials and Cancelled Orders

Action codes for this program are:

SLD - Deleted Serials Listing

SLC - Cancelled Orders Listing

Note - These transactions must be terminated by a slash bar (/).

One purpose of this program is to display a list of the serials control number with addresses that have been deleted from the master file. The other purpose is to display a list of the serials control numbers with order numbers and addresses that have had orders cancelled.

There are no user (data) error messages.

SYSTEM ERROR MESSAGES

Call the responsible programmer/analyst if one of the following error messages is received.

An invalid RSIC key: "MASTER FILE READ HAS ENCOUNTERED INVALID KEY NO. (_____)".

On a mismatch of record I.D.'s: "INVALID RECORD I.D. ON MASTER RECORD AT ADDRESS (_____)".

2.7 SEARCH AND RETRIEVAL

The following procedure is user documentation for the Information Retrieval System.

The general retrieval format is as follows:

SIR/-----/S'#

SIR/ is always the first 4 characters input and is the system code to call the Retrieval System.

/S'# is always the last 4 characters to terminate a Retrieval transaction. Note that EOB represents an end of buffer mark and is input by hitting an alternate code 5 on the keyboard. The dash line between the slashes indicates the variable retrieval parameters. There are four types of parameters:

Type 1 - Mandatory. Used to define the logical retrieval relationships(s) desired.

EXAMPLE: 1 A B, C, E-F

The 1 denotes a logical relationship parameter. A, B, C, E and F represent retrieval terms (Subjects and/or names). The commas are used to separate logical conditions which satisfy the retrieval criteria (equivalent to an OR). The minus sign indicates a NOT condition. Terms not separated by a comma represent an AND condition. The above parameter therefore breaks down to the following three logical terms which would satisfy the request:

A AND B (Logical term 1)

OR C (Logical term 2)

OR E AND NOT F (Logical term 3)

Several other examples would be:

1 X, Y

X (Logical term 1)

OR Y (Logical term 2)

1 X Y Z, A-B-C

X AND Y AND Z (Logical term 1)

OR A AND NOT B AND NOT C (Logical term 2)

Note that either a space or minus sign must appear before each of the terms. A minus sign cannot be used on the first term within a logical term.

1 Z Y-X (correct)

1 -X Y Z (incorrect)

A maximum of 36 individual terms is permitted for a given request (counting each repeat as a new term).

1 A B, A C

The above request has 4 individual terms even though the A term is used twice.

Type 2 - Optional. Used to override preset program values. Three program values: output format code, hit limit value, and print limit value are already set within the system and will be used unless a type 2 parameter is input by the user.

EXAMPLE: 2 C,50,100

The C denotes that the new output format will be in a catalog format. The 50 limits the request to 50 hits and the 100 sets a print line limit of 100.

The three valid codes for output are:

A - abbreviated format (LC, title, author). This is the system standard.

C - Catalog format (LC, title, author, bib. paragraph and informal notes, main entry).

S - Statistical format--the only output is a count of the number of books satisfying the request.

The system standards are 100 for the hit and 500 for the print limits.

Type 3 - Mandatory. Used to tell the search program the number of logical terms (input using the type 1 parameter) that will satisfy the search criteria.

EXAMPLE: 3 2

The 3 denotes the parameter type and the 2 denotes the number of logical terms.

The following examples illustrate the type 3 parameter used with its corresponding type 1 parameter.

1 A, B (two logical terms A or B)

3 2

1 A B, C-E (two logical terms A and B, or C not E)

3 2

1 A B C (one logical term A and B and C)

3 1

Type 4 - Mandatory. Used to identify the search terms and correlate them to the symbols used in the type 1 equation.

EXAMPLE: 4 A S LOGARITHMS

The 4 denotes the parameter type, the A is the letter used to represent the search term in the type 1 equation, S identifies the search term as a subject, and LOGARITHMS is the actual search term.

The two valid search term type codes are:

S - Subject

N - Name [author (A), corporate author (P), editor (E), illustrator (I), compiler (C), and translator (T).]

The following examples illustrate the usage of the type 4 parameter in conjunction with the type 1 equation parameter.

1 A B (logical term A and B)

4 A S ABACUS/4 B N BERNAL J D

The slash (/) is used to separate individual parameters and different parameter types.

1 A B, C B (two logical terms A and B, or C and B)

4 A S ABACUS/4 B S MATHEMATICS/4 C N DOE JX.

Note that although there are 4 search terms in the type 1 parameter list only one term, B, is repeated. The type 4 parameter list therefore has only 3 terms input, one for each unique term.

The following are examples of complete search requests:

SIR/3 1/1 A/ 4 A N BERNAL J. D./\$'#

Search for all books written by J.D. Bernal.

Output format will be abbreviated and hit/print limits are 100/500 as no change was input to the system standard values.

SIR/1 A B/3 1/2 C, 50, 75/4 A S ABACUS/

4 B S MATHEMATICS/\$'#

Search for all books having subject entries of Abacus and Mathematics. Print the output in catalog format and set the hit/print limits to 50/75.

SIR/1 A, B-C, X/3 3/4 A N DOE J X /

4 B S MATHEMATICS / 4 C S LOGARITHMS/

4 X S ALGEBRA / \$'#

Search for books written by J. X. Doe, or having a subject of mathematics but not logarithms, or books with algebra as a subject. System standards are used for output form and hit/print limits.

Note that the order of parameter types is immaterial. Names may be input as DOE J. X. or DCE J X and corporate authors should be input as they are spelled (GALE RESEARCH INSTITUTE).

Another parameter is available for the batch version only. This parameter will sort the output by LC number, title, or author. Only one sort per request may be input. The parameter is simply entered in the transaction as /N/ where:

N = 5	Sort by LC number
6	Sort by Title
7	Sort by Author

2.8 DATA FILE VERSION VERIFICATION

The first transaction of each day should be the Monitor Record transaction to verify that the correct RSIC data file is available. The user must be aware of the last file update. In this regard, the user should contact the Production Scheduling and Quality Control Section or the RSIC maintenance programmer. The fixed format is as follows:

MR 0/042512'##

The output will be an entry for each of the last five programs which have updated the data file. Each entry consists of a unique version number (one more than the previous number) assigned by the updating program, the name of the updating program, and the date of the run. The five entries are listed in descending version number sequence.

Examples for each Monday

Note: the first two entries will always be as shown; the remainder may vary according to the previous weekend's updates.

The following print is a monitor of address 042512## e k 6 b i

0000 0000 178 ONLINE	22 FEB 82 177000000##	e k 6
0001 0001 177 PRINT CLAIMS	02 19 82 177000000##	e k 6
0000 0000 176 BATCH RECEIVING	19 FEB 82 169000000##	e k 6
0000 0000 175 SEND STATISTICS	19 FEB 82 169000000##	e k 6
0000 0000 174 PATRON PRINT	19 FEB 82 169000000##	e k 6

CHAIN ADDR - 000000## e k 6 b i

The Following print is a monitor of address 042512## e k 6 b i

0000 0000 081 ONLINE	19 JAN 82 080000000##	e k 6
0001 0001 080 BATCH	18 JAN 82 080000000##	e k 6
0000 0000 079 ONLINE	18 JAN 82 078000000##	e k 6
0566 0566 078 ONLINE	18 JAN 82 078000000##	e k 6
0001 0001 077 PRINT CLAIMS	01 15 82 077000000##	e k 6

CHAIN ADDR - 000000## e k 6 b i

The Following Print is a monitor of address 042512%# e k 6 b i

0000 0000 184 ONLINE 24 FEB 82 18300000%# e k 6

0001 0001 183 ONLINE 23 FEB 82 18300000%# e k 6

0355 0355 182 ONLINE 23 FEB 82 18200000%# e k 6

0001 0001 181 DELETE BOOK NOTICES 22 FEB 82 18100000%# e k 6

0000 0000 180 PRINT ACCESSIONS 22 FEB 82 17800000%# e k 6

CHAIN ADDR - 000000%# e k 6 b i

When the version numbers are not in descending numerical sequence or when the first entry is not the last program updating the file, RSIC maintenance programmers must be notified immediately. If the programmers cannot be reached, the Computer Operations Department must be made aware of the situation and should place the RSIC application on hold until the correct data file is available.

USER COMMENT SHEET

Please give us your comments concerning the content, style, and usefulness of this document.

Title of Manual: _____

Customer Organization: _____ System Type: _____

Name of User: _____ Date: _____
(Optional)

Comments: Give page and paragraph reference where appropriate.

Please rate this manual.	<u>Good</u>	<u>Adequate</u>	<u>Not Adequate</u>
Organization of the text.....	_____	_____	_____
Clarity of the text.....	_____	_____	_____
Adequacy of coverage.....	_____	_____	_____
Examples.....	_____	_____	_____
Tables and figures.....	_____	_____	_____
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