Dan -

From the desk of ... Teresa Wai

Enclosed is your 9 Series
Master - card tapes:

      Card deck
6 Masters at 9T, 800 BPI

2   ↓   at 9T, 1600 BPI

1 + (1 bACK-UP) UTIL tape at 9T, 1600 $_{BPI}$

1 Master Tape to Card Deck
   Reproduction Procedure (1 Pg)

1 Software Library Utility
   Programs documentation (17 Pages)

TW

Honeywell

SOFTWARE LIBRARY

MASTER TAPE TO CARD DECK REPRODUCTION PROCEDURE

In order to use the Software Library Master Tapes the user must do the following:

1. Create account :UTIL. Since all labeled tapes were created from :UTIL I would recommend the user continue to use this account name.

2. Copy all files from tape #UTIL to account :UTIL. This tape contains the load modules SLIP, SLPUNCH, SLUPDATE and their ROMS.

3. Build the MTRNMFILE using the LIST option of the SLUPDATE program.

4. Card decks may now be punched and verified using the SLPUNCH program as described in the documentation.

SOFTWARE LIBRARY UTILITY PROCESSORS

OVERVIEW

The Honeywell Software Library at LADC has approximately 1750 computer programs which are available to customers on request. They were all originally in card deck form and were created on various Xerox computers such as the 925, 9300, Sigma 2, 3, 7, 9, etc. They are in various forms such as binary and symbolic programming code. In many cases JCL exists as part of the deck.

These card decks are now maintained as files on magnetic tape. The tapes are standard Xerox labeled tapes which are created and updated using two processors called SLIP and SLUPDATE. Card decks and paper tapes are punched and verified using a processor called SLPUNCH.

In order to read these various types of card decks through a Xerox Sigma 7 card reader and to maintain them on magnetic tape, all cards are read in as 120 byte binary records. The card decks are also read in backwards to prevent problems associated with having JCL as part of the card deck. Each file is inverted as it is copied to tape so the finished master tape has the file records in correct order for later processing.

Access to the files on tape is by Program Catalog Number (PCN). These Catalog Numbers are maintained in a disk file called MTRNMFILE which is built by the processor SLUPDATE or SLIP. The records in the MTRNMFILE are in order by the 12 digit Catalog Numbers as are the files on tape. Each record in the MTRNMFILE contains the Catalog Number, the INSN of the tape on which the file resides, and a record count of the file.

SLIP

The Software Library Invert Processor (SLIP) is a utility program that will perform the task of taking Software Library Master Program decks card-to-tape. It will order these program decks on tape according to catalog number, element number, and version number. This task is performed in three steps.

1. CARD TO DISK
2. VERIFY
3. COPY TO TAPE

The first two steps require the presence of a Catalog Card at the end of each deck to be taken card-to-tape. These two steps also require that the card decks be read in backwards. This will allow cards containing a "!" in column 1 to be read in as part of a card deck. The only restrictions are that no cards within a deck contain a "!" in column 30 and no cards contain a "**" in columns 79-80. The disk file records are inverted as they are being copied to tape, thus the files on tape will not be backwards.

As the card-to-disk job is running a file called MTRNMFILE is created (or updated if it already exists). Each time a Catalog Card is encountered a record is written in the MTRNMFILE which contains a 12 digit Program Catalog Number (PCN). Thus, a record is kept of all card decks copied to disk. The MTRNMFILE is used during the verify pass and also the copy-to-tape pass.

I. CARD TO DISK

1. A Catalog Card for each deck to be copied to disk must be punched in the following format:

        Cols.   1-2   **
        Cols.   3-14 A 12 digit alphanumeric Catalog Number
        including a dash (-) between the Principal Catalog
        Number and the Element Number and Version, e.g.

        704001-84A00

2. The Catalog Card should be placed with the card deck in such a way that the Catalog Card will be read in first. The Catalog Card must not be read in backwards. The deck which follows the Catalog Card must be turned around so that it is read in backwards. The Catalog Card and deck which follows must both have their 12 edges in the same direction.

3. Punch a SLIP command card as follows:
        Cols.   1-12   CARD TO DISK

4. The JCL necessary to perform the card-to-disk operation is as follows:

        !JOB
        !LIMIT (CORE,4),(TIME,60),(RERUN),(ORDER)
        !RUN (LMN,SLIP)
        !DATA
        CARD TO DISK
        !BIN
        (card decks with Catalog Cards)
        !BCD
        !FIN

5. A line printer listing of all files copied to disk is generated as the job is running; therefore, if the system crashes during a card-to-disk operation the line printer listing will indicate the last deck successfully copied to disk. The job should be restarted with the deck immediately following the last one listed on the line printer.

II. VERIFY

1. Read in cards using the same JCL described in the card-to-disk instructions. Change the command card as shown below.

   Cols. 1-6 VERIFY

2. At the end of each verify pass the MTRNMFILE will be listed on the line printer. The listing will show which card decks verified and which ones did not.

III. COPY_TO_TAPE

The copy-to-tape function of the SLIP processor will read each record of the MTRNMFILE. It will determine if there is a disk file present in the running account which matches the file name in the MTRNMFILE record. If a file is found it will be inverted and copied to tape. If no file is found the program will skip to the next record in the MTRNMFILE.

1. Punch a SLIP command card as follows:

       Cols.   1-12   COPY TO TAPE

2. The JCL necessary to perform the copy-to-tape operation is as follows:

```
!JOB
!LIMIT (CORE,4),(TIME,60),(9T,1)
!RUN (LMN,SLIP)
!DATA
COPY TO TAPE
RESTART (The RESTART command goes here if necessary to
        restart, otherwise it is omitted.)
!FIN
```

3. The program will issue 2 prompts to the operator's console. The prompts below are in quotes followed by a brief explanation.

       "REEL NO. (LNNN)="

Enter a 4 digit reel number for the first output tape. The first character must be a letter in the range A-Z. The second through fourth characters must be numbers in the range 000-999. If invalid characters are detected, or less than four characters are entered, a '??' will be printed on the operator's console, followed again by the above prompt.

       "WAS YOUR KEY-IN CORRECT (Y/N)?"

Enter a 'Y' for YES and processing will continue. Enter an 'N' for NO and the request for a reel number will be repeated.

4. If the job should abort for any reason it may be restarted by adding a RESTART command after the COPY TO TAPE command. Copy the MTRNMFILE to the line printer to determine the last file successfully copied to tape. This can be determined by checking the column to the right of the file name. If the output tape serial number is present the entire file was successfully copied to tape. Enter the last good Catalog Number when the following prompt is issued:

    "LAST CATALOG NUMBER="

    The program will skip to the end of the specified file and continue from that point.

5. At the end of the copy-to-tape pass the MTRNMFILE will be copied to the line printer.

SOFTWARE LIBRARY INVERT PROCESSOR

PROCESSOR MESSAGES

All SLIP processor messages not previously mentioned are
listed below. The messages are in quotes and followed by a brief
explanation.

"!BIN OR FIRST CATALOG CARD MISSING"

This indicates that the first card read following the
!BIN card was not a Catalog Card (** in Cols. 1-2) or
the !BIN card was not present.

"INVALID COMMAND --- JOB ABORTED"

The command following the !DATA card was not one of the
following:
1) CARD TO DISK
2) VERIFY
3) COPY TO TAPE

"INVALID CHARACTER IN CATALOG CARD --- JOB ABORTED"

A Catalog Card contained a character that was not one
of the following:
1) 0 thru 9
2) A thru Z
3) -

"BLANK CHARACTER IN CATALOG CARD --- JOB ABORTED"

A blank character was found in the PCN of a Catalog Card.
Blanks are not permitted.

"DISK FILE DOES NOT EXIST"

An attempt was made to verify a card deck against a
nonexistent disk file.

"VERIFY ERROR"

The disk file does not match the card deck.

"VERIFIED OK"

The disk file matches the card deck.

"FILE TO START AFTER NOT ON TAPE"

The Catalog Number given in response to the restart
prompt is not in the MTRNMFILE.

SLPUNCH

The Software Library Punch Processor (SLPUNCH) performs the
task of punching and verifying cards and paper tape from Software
Library Master Tapes. Files selected from tape are first copied to
permanent files on disk and then copied to either the card punch or
paper tape punch. Using disk files enables the operator to punch
and verify additional copies of a program deck without the
necessity of mounting a tape more than once. Any number of Program
Catalog Numbers (PCN's) may be entered by the operator through the
operator's console as well as any number of copies of each PCN.
Each card deck punched out will have a header card at the end of
the deck containing the PCN, copy number, and card count. These
headers are punched out backwards and are used during the
verification pass. They also aid the operator in separating the
individual decks.

SOFTWARE LIBRARY PUNCH PROCESSOR

I. PUNCHING_CARDS_OR_PAPER_TAPE

1. To punch cards or paper tape the MTRNMFILE must be present in the running account. Use the following JCL:

```
!JOB
!LIMIT (CORE,4),(TIME,15),(9T,1),(PP,1),(PR,1)
!RUN (LMN,SLPUNCH)
!FIN
```

2. Several prompts will be issued to the operator's console which require key-ins. The prompts below are enclosed in quotes.

    "PUNCH PAPER TAPE (Y/N)?"

Enter a 'Y' for YES if you want to punch paper tape. The paper tape punch must be ready. Enter an 'N' for NO if you want to punch cards.

    "PUNCH FROM TAPE OR DISK (T/D)?"

Enter a 'T' if files are to be selected from tape. Enter a 'D' if the files are already on disk. If a 'D' is entered and a file is not found on disk, the tape will be requested.

    "ENTER CATALOG NUMBER:"

Enter the 12 digit Program Catalog Number (PCN) of the file to be punched, e.g. 704000-84A00.

    "ENTER NUMBER OF COPIES:"

Enter the number of copies desired of the PCN. If a 0 is entered the file will be copied from tape to disk and nothing will be punched.

    "WERE KEY-INS CORRECT (Y/N)?"

Enter a 'Y' for YES and processing will continue. Enter an 'N' for NO and the last PCN will be ignored.

    "ARE THERE ADDITIONAL REQUESTS (Y/N)?"

If more PCN's are to be entered, answer with a 'Y' for YES. If punching is to commence answer with an 'N' for NO. Mount the requested tape.

II. VERIFYING CARD DECKS

1. To verify card decks remove the CP-V monitor generated header cards
    at the beginning of the deck and the !EOD at the end. The
    remaining card decks each have a Catalog Card at the end. The
    Catalog Card is punched out backwards and must be the first card
    read of each deck during the verification pass. The Catalog Cards
    are in the following format as viewed from the backside and reading
    from left to right.

        Cols.   1-2   3-14   49-56   63-64   69-80

                 **   PCN   CARD   COPY   LACED
                                        COUNT   NUMBER

2. Using the following JCL place the card decks after the !BIN card.
    The cards must be turned around such that the first card read
    following the !BIN is a Catalog Card. The SLPUNCH command VERIFY
    must follow the !DATA card.

        !JOB
        !LIMIT (CORE,4),(TIME,15),(RERUN),(PP,1),(PR,1)
        !RUN (LMN,SLPUNCH)
        !DATA
        VERIFY
        !BIN
        card decks (backwards)
        !BCD
        !FIN

3. The success or failure of the verification pass on each card deck
    will be indicated on the line printer. As shown in the following
    example 3 card decks were punched for PCN 704000-84800. Copies 1
    and 3 were good and copy 2 was bad. Each copy may be identified by
    the COPY NUMBER punched in columns 63-64 of the Catalog Card.

        704000-84800   COPY   1   VERIFIED OK
        704000-84800   COPY   2   VERIFY ERROR
        704000-84800   COPY   3   VERIFIED OK

III. VERIFYING PAPER TAPES

1. To verify paper tapes the SLPUNCH processor is used with the
    command VERIFY PAPER TAPE. The processor initially enters a WAIT
    state to allow the operator time to set up the paper tape reader.
    To continue processing the operator must interrupt the job with the
    INT key-in. Results of each verification pass will be printed on
    the operator's console. At the end of each verification pass the
    operator will be given the choice of continuing or exiting the job.
    The JCL necessary to verify paper tapes is as follows:

        !JOB
        !LIMIT (CORE,4),(TIME,15),(RERUN),(PP,1),(PR,1)
        !RUN (LMN,SLPUNCH)
        !DATA
        VERIFY PAPER TAPE
        !FIN

2. At the beginning of each verification pass the following message
    will be sent to the operator's console:

        "SET UP READER TO VERIFY NEXT TAPE"
        "INTERRUPT WHEN READY"

    When the paper tape reader is made READY key-in:

        !INT,sysid

3. When the job is interrupted the following prompt will be issued:

        "ENTER A NEW CATALOG NUMBER? (Y/N)?"

    If an 'N' is entered for NO, the processor will use the last PCN
    given; thus if several tapes for the same PCN are to be verified,
    the PCN need not be keyed in again. If 'N' is entered and no PCN
    was previously given the job will abort with a 1406 error. Key-in
    a 'Y' for YES and the processor will send the following prompt:

        "ENTER CATALOG NUMBER:"

    Key-in the 12 digit PCN of the tape to be verified, e.g.
    704000-84A00.

4. If an error is encountered while verifying a tape the following
    message will be transmitted to the operator's console:

        "VERIFY ERROR ON CAT. NO. (PCN)"

    or, if no errors are encountered:

        "(PCN) VERIFIED OK"

5. At the end of a verification pass the operator will be allowed to
    continue or exit the job. The following prompt will be sent to the
    operator's console:

        "QUIT OR CONTINUE (Q/C)?"

    Enter a 'Q' for QUIT and the program will exit. Enter a 'C' for
    CONTINUE and the program will start again with step 2 above.

SLUPDATE

The SLUPDATE processor will perform the file maintenance task for Software Library Master Tapes. It has two main functions which are invoked separately with the processor commands UPDATE and LIST. In the UPDATE mode a new set of Master Tapes may be created while adding new files, and replacing and deleting old files as required. In the LIST mode each record of every file on the Master Tape is counted. This count of the file records plus the name of the tape file and the INSN of the tape on which it resides is written to a file called MTRNMFILE. The MTRNMFILE is created as a keyed file on disk with each key being the 12 digit Catalog Number (PCN) of a Software Library program.

There are 2 additional disk files which are used by the SLUPDATE processor. They are called MDELFILE which is created by the user and contains the names of files to be deleted during an update pass, and DEL1 which is a sorted version of the MDELFILE and is created by SLUPDATE.

Before using the SLPUNCH processor to punch cards and before an update pass may be made using the SLUPDATE processor, the MTRNMFILE must be created.

COMMANDS

I. **LIST**

If the MTRNMFILE is present in the running account and SLUPDATE is run using the LIST command the MTRNMFILE will be updated. If no MTRNMFILE is present then a new one is created.

1. The JCL necessary to create or update the MTRNMFILE using the LIST command is as follows:

```
!JOB
!LIMIT (CORE,4),(TIME,60),(9T,1),(RERUN)
!RUN (LMN,SLUPDATE)
!DATA
LIST
!FIN
```

2. The program will issue 2 prompts to the operators console which require operator key-ins.

"REEL NUMBER OF I/P MASTER"

Enter the 4 digit reel number of the first Master Tape.

"WERE KEY-INS CORRECT (Y/N)?"

Enter a "Y" for YES and processing will begin. Enter an "N" for NO and the prompts will be repeated.

II.   UPDATE

The UPDATE command will build a new set of Master Tapes from a previous set of Master Tapes and a set of Update Tapes. It will allow obsolete files to be deleted if these files are named in the MDELFILE.

1.   The JCL necessary to preform an update pass is as follows:

```
!JOB
!LIMIT (CORE,4),(TIME,60),(9T,3),(RERUN)
!RUN (LMN,SLUPDATE)
!DATA
UPDATE
!FIN
```

2.   The program will issue 4 prompts to the operators console which require operator key-ins.

"REEL NUMBER OF I/P MASTER:"

Enter the 4 digit reel number of the first Master Tape.

"REEL NUMBER OF UPDATE TAPE:"

Enter the 4 digit reel number of the first Update Tape or if no Update Tape is present press C/R.

"ENTER FIRST REEL NUMBER OF O/P MASTER:"

Enter a 4 digit starting reel number. The first character must be alphabetic. The last three characters must be numeric.

"WERE KEY-INS CORRECT (Y/N)?"

Enter a "Y" for YES and processing will begin. Enter an "N" for NO and the prompts will be repeated.

3.   If files are to be deleted they must be named in the MDELFILE which must be in the running account. The 12 digit PCN of each file to be deleted must be in columns 1-12 with only one PCN for each line. The MDELFILE is sorted at run time to another file called DEL1 thus eliminating any need for the MDELFILE to be in order.

PROCESSOR MESSAGES

All messages associated with the SLUPDATE processor and not previously mentioned are listed below. The messages are in quotes. A brief explanation follows each message.

"INVALID COMMAND --- JOB ABORTED"

No LIST or UPDATE command in JCL.

"INVALID DELETE CARD -- JOB ABORTED"

A PCN in the MDELFILE is not in the correct format.

"NO FILES WILL BE DELETED IN UPDATE PASS"

No MDELFILE present in the running account.

"CREATING NEW MASTER NAME FILE"

No MTRNMFILE found in running account at start of LIST pass.

"REEL NUMBER IN MTRNMFILE CONFLICTS WITH I/P TAPES"

During an update pass the processor compares the INSN of the tape on which the file resides with the INSN specified for that file in the MTRNMFILE. If they do not match the job will abort.

"(PCN) DOES NOT EXIST -- CAN'T DELETE"

A PCN in the MDELFILE does not exist on either the I/P Master Tape or the Update Tape. The record is ignored and processing continues.

"(PCN) DELETED"

A PCN in the MDELFILE was found on either the I/P Master Tape or the Update Tape and deleted.

"END OF JOB"

The UPDATE or LIST completed successfully.

CRG	GRAN	REC	LAST MODIFIED	NAME
K 3		15		:STD
C		36		CCTBC
C		46		CPYRC
K 3		3		JCL:LOAD:SLIP
K 3		4		JCL:LOAD:SLPUNCH
K 3		4		JCL:LOAD:SLUPDATE
C		54		PUNCHBC
C		30		PVBO
K15		6		SLIP
K15		6		SLPUNCH
K15		6		SLUPDATE
C		14		SUBBC
C		18		TABLESBC
C		76		UPDATEBC
C		37		VFYRC
C		19		VFYPTBC

.. 16 FILES LISTED, 374 TOTAL RECORDS

1600 BPI

```
 15:48 MAR 05,'82 ID=0393 (SIG 7)
JOB :UTIL,OPR000000791,7. FILE=JCL:TAPECOPY, ID=1B,  LINE=1E
LIMIT (CORE,24),(TIME,60),(9T,2)
PCL
COPYALL LT#M300 TO LT#M400
850035-74B00        850605-84A00        850626-44A00        850626-84A00        850628-34A00
850629-24A00        850629-34A00        850634-34A00        850637-34A00        850638-34A00
850639-34A00        850640-44A00        850640-84A00        850641-34A00        850642-84B00
850643-24A00        850643-44A00        850644-44A00        850645-44A00        850645-84A00
850646-44A00        850646-84A00        850647-84B00        850648-44A00        850648-84A00
850649-34A00        850649-84A00        850650-34A00        850650-84A00        850652-34A00
850652-84A00        850653-34A00        850653-84A00        850655-44A00        850656-44A00
850656-84A00        850657-34A00        850658-34A00        850658-84A00        850659-44A00
850659-84A00        850660-74A00        850661-34A00        850662-34A00        850663-34A00
850663-84A00        850666-34A00        850667-34A00        850671-44A00        850675-34A00
850675-84A00        850676-34A00        850676-84A00        850677-34A00        850678-34A00
850680-24A00        850680-34A00        850681-34A00        850682-34A00        850684-44A00
850686-24A00        850687-34A00        850688-24A00        850688-44A00        850690-24A00
850690-34A00        850691-34A00        850691-84A00        850692-34A00        850693-44A00
850693-84A00        850694-44A00        850695-34A00        850696-34A00        850697-34A00
850698-34A00        850699-34A00        850699-84A00        850701-34A00        850702-34A00
850703-44A00        850704-34A00        850705-34A00        850708-34A00        850711-84A00
850712-34A00        850716-34A00        850717-34A00        850720-34A00        850721-34A00
850721-84A00        850722-34A00        850724-44A00        850724-84A00        850725-84A00
850726-44A00        850726-84A00        850727-44A00        850739-34A00        850740-24A00
850740-44A00        850741-24A00        850741-44A00        850742-34A00        850743-34A00
850744-44B00        850755-44A00        850755-84A00        850816-44A00        850831-34A00
850831-84A00        850832-34A00        850832-84A00        850833-34A00        850835-34A00
850836-34A00        850841-34A00        850842-34A00        850848-84A00        850857-34A00
850858-34A00        850859-34A00        850862-34A00        850864-34A00        850901-44A00
850914-24A00        850914-44A00        850915-24A00        850915-44A00        850916-44A00
850957-84A00        850963-34A00        850964-34A00        850965-34A00        850967-34A00
850968-34A00        850970-44A00        850985-34A00        850985-84A00        850986-34A00
850986-84A00        850989-34A00        850990-34A00        850991-34A00        850992-34A00
850992-84A00        851012-44A00        851014-34A00        851017-34A00        851019-44A00
851026-34A00        851027-44A00        851047-24A00        851047-34A00        851048-34A00
851048-84A00        851052-34A00        851054-24A00        851054-44A00        851055-44A00
851056-44A00        851057-44A00        851058-44A00        851060-44A00        851060-84A00
851062-44A00        851063-44A00        851064-24A00        851064-44A00        851101-34A00
```

851102-34A00	851103-34A00	851104-44A00	851104-84A00	851106-24A00
851106-44A00	851107-44A00	851107-84A00	851108-34A00	851108-84A00
851110-44A00	851110-84A00	851111-34A00	851111-84A00	851112-24A00
851112-44A00	851113-44A00	851113-84A00	851114-44A00	851114-84A00
851115-44A00	851115-84A00	851116-44A00	851116-84A00	851117-44A00
851118-44A00	851118-84A00	851119-44A00	851119-84A00	851121-24A00
851121-44A00	851122-44A00	851122-84A00	851123-44A00	851123-84A00
851124-44A00	851124-84A00	851127-44A00	851127-84A00	851128-44A00
851128-84A00	851130-44A00	851131-24A00	851131-44A00	851134-44A00
851134-84A00	851135-34A00	851136-44A00	851137-44A00	851143-24A00
851143-44A00	851144-44A00	851144-84A00	851145-34A00	851149-34A00
851150-34A00	851151-24A00	851151-34A00	851152-44A00	851154-44A00
851155-44A00	851156-44A00	851157-34A00	851159-34A00	851160-34A00
851161-34A00	851162-34A00	851163-34A00	851166-44A00	851167-34A00
851168-34A00	851169-24A00	851169-34A00	851170-34A00	851171-34A00
851173-34A00	851174-34A00	851175-34A00	851176-44A00	851176-84A00
851177-24A00	851177-34A00	851178-34A00	851179-34A00	851180-34A00
851181-44A00	851181-84A00	851182-34A00	851184-34A00	851185-34A00
851186-34A00	851187-34A00	851187-84A00	851188-34A00	851188-84A00
851257-84B00	851291-44A00	851292-24A00	851293-24A00	851294-24A00
851299-34A00	851300-64A01	851500-74D00	851579-44A00	851580-34A00
851580-84A00	851584-44A00	851585-44A00	851586-34A00	851587-34A00
851587-84A00	851588-34A00	851588-84A00	851589-34A00	851589-84A00
851590-34A00	851590-84A00	851591-34A00	851591-84A00	851592-34A00
851592-84A00	851593-34A00	851593-84A00	851594-34A00	851594-84A00
851595-34A00	851595-84A00	851596-34A00	851596-84A00	851597-34A00
851597-84A00	851598-34A00	851601-34A00	851604-34A00	851605-34A00
851606-34A00	851607-34A00	851610-34A00	851612-34A00	851613-34A00
851614-24A00	851614-34A00	851615-44A00	851616-44A00	851617-44A00
851618-44A00	851618-84A00	851619-44A00	851619-84A00	851620-44A00
851620-84A00	860000-74B00	860007-44A00	860007-84A00	860035-64A01
860563-84B00	860605-34A00	860606-24A00	860606-34A00	860607-44A00
860607-84A00	860608-44A00	860608-84A00	860609-44A00	860609-84A00
860610-84A00	860611-44A00	860611-84A00	860612-24A00	860612-34A00
860613-24A00	860613-34A00	860614-24A00	860614-34A00	860615-24A00
860616-24A00	860616-34A00	860617-24A00	860617-34A00	860618-24A00
860618-34A00	860619-24A00	860620-24A00	860620-34A00	860621-24A00
860621-34A00	860622-24A00	860622-34A00	860623-24A00	860623-34A00
860624-24A00	860624-34A00	860625-24A00	860625-34A00	860626-24A00

860626-34A00	860627-24A00	860627-34A00	860628-24A00	860628-34A00
860629-24A00	860629-34A00	860630-24A00	860630-34A00	860631-24A00
860631-34A00	860632-34A00	860633-24A00	860633-34A00	860634-24A00
860634-34A00	860635-24A00	860635-34A00	860636-24A00	860636-34A00
860637-24A00	860637-34A00	860638-24A00	860638-34A00	860639-24A00
860639-34A00	860640-24A00	860640-34A00	860641-34A00	860641-84A00
860642-24A00	860642-34A00	860643-24A00	860643-34A00	860644-24A00
860644-34A00	860645-24A00	860645-34A00	860646-24A00	860646-34A00
860647-24A00	860647-34A00	860648-24A00	860648-44A00	860650-24A00
860650-44A00	860651-24A00	860651-34A00	860652-24A00	860653-24A00
860653-34A00	860654-24A00	860654-34A00	860655-24A00	860655-34A00
860656-24A00	860656-34A00	860657-24A00	860657-34A00	860658-24A00
860658-34A00	860659-24A00	860659-34A00	860660-24A00	860660-34A00
860661-24A00	860662-34A00	860662-84A00	860663-34A00	860664-44A00
860664-84A00	860665-34A00	860665-84A00	860666-44A00	860666-84A00
860667-24A00	860667-34A00	860669-24A00	860669-34A00	860670-24A00
860670-34A00	860671-24A00	860671-34A00	860672-24A00	860672-34A00
860673-24A00	860673-34A00	860674-24A00	860674-34A00	860675-24A00
860675-34A00	860676-24A00	860676-34A00	860677-24A00	860677-34A00
860678-24A00	860678-34A00	860679-24A00	860679-44A00	860680-24A00
860680-34A00	860681-24A00	860681-34A00	860682-24A00	860682-34A00
860683-24A00	860683-34A00	860684-24A00	860684-34A00	860685-24A00
860685-34A00	860686-24A00	860686-34A00	860687-24A00	860687-34A00
860688-24A00	860688-34A00	860689-24A00	860689-34A00	860690-34A00
860692-24A00	860694-24A00	860694-44A00	860696-34A00	860696-84A00
860697-84A00	860698-84A00	860700-34A00	860716-34A00	860718-44A00
860718-84A00	860719-44A00	860720-34A00	860721-34A00	860722-34A00
860722-84A00	860723-34A00	860723-84A00	860726-24A00	860726-44A00
860727-44A00	860727-84A00	860729-44A00	860729-84A00	860730-34A00
860730-84A00	860731-24A00	860731-44A00	860732-24A00	860732-44A00
860733-34A00	860733-84A00	860734-24A00	860734-44A00	860737-44A00
860737-84A00	860738-44A00	860738-84A00	860739-44A00	860739-84A00
860740-44A00	860740-84A00	860743-24A00	860744-44A00	860744-84A00
860745-44A00	860745-84A00	860746-44A00	860746-84A00	860747-44A00
860747-84A00	860748-84A00	860749-24A00	860749-44A00	860750-84A00
860751-24B00	860751-34B00	860752-24A00	860752-44A00	860753-44A00
860753-84A00	860754-44A00	860754-84A00	860755-44A00	860755-84A00
860757-84A00	860758-84A00	860759-24A00	860759-44A00	860760-24A00
860760-44A00	860761-44A00	860761-84A00	860762-44A00	860762-84A00

860763-44A00	860763-84A00	860764-44A00	860764-84A00	860765-44A00
860765-84A00	860766-44A00	860766-84A00	860767-44A00	860768-44A00
860768-84A00	860769-44A00	860770-44A00	860770-84A00	860771-44A00
860771-84A00	860772-44A00	860772-84A00	860773-44A00	860773-84A00
860774-44A00	860774-84A00	860776-84A00	860777-44A00	860777-84A00
860778-44A00	860778-84A00	860779-44A00	860779-84A00	860780-44A00
860780-84A00	860781-44A00	860781-84A00	860782-44A00	860782-84A00
860783-44A00	860784-84B00	860787-44A00	860788-44A00	860789-44A00
860789-84A00	860790-44A00	860791-44A00	860791-84A00	860792-84A00
860793-44A00	860793-84A00	860794-44A00	860794-84A00	860795-44A00
860795-84A00	860796-24A00	860796-44A00	860798-24A00	860798-34A00
860799-24A00	860799-34A00	860800-34A00	861000-74D00	861076-44A00
861076-84A00	861077-24A00	861077-44A00	861078-24A00	861078-44A00
861079-24A00	861079-44A00	861082-24A00	861082-34A00	861084-24A00
861084-44A00	861085-24A00	861085-44A00	870000-84A00	870006-84A00
870007-84A00	870008-44A00	870008-84A00	890158-34A00	890159-34A00
890160-34A00	890161-34A00	890162-34A00	890163-34A00	890164-34A00
890165-34A00	890166-34A00	890167-34A00	890168-34A00	890169-34A00
890170-34A00	890171-34A00	890172-34A00	890173-34A00	890174-34A00
890175-34A00	890176-34A00	890177-34A00	890178-34A00	890179-34A00
890180-34A00	890181-34A00	890182-34A00	890183-34A00	890184-34A00
890185-34A00	890186-34A00	890187-34A00	890189-34A00	890190-34A00
890191-34A00	890192-34A00	890193-34A00	890194-34A00	890195-34A00
890196-34A00	890197-34A00	890198-34A00	890199-34A00	890200-34A00
890201-34A00	890202-34A00	890203-34A00	890204-34A00	890205-34A00
890206-34A00	890207-34A00	890208-34A00	890209-34A00	890210-34A00
890211-34A00	890212-34A00	890213-34A00	890214-34A00	890215-34A00
890217-34A00	890219-34A00	890220-34A00	890221-34A00	890222-34A00
890223-34A00	890224-34A00	890225-34A00	890226-34A00	890227-34A00
890228-34A00	890228-84A00	890229-44A00	890232-34A00	890233-34A00
890234-34A00	890235-34A00	890236-34A00	890237-24A00	890237-34A00
890239-34A00	890240-34A00	890241-24A00	890242-34A00	890243-24A00
890243-34A00	890246-34A00	890248-34A00	890249-34A00	890250-34A00
890251-34A00	890252-24A00	890253-34A00	890254-34A00	890255-34A00
890256-34A00	890257-34A00	890258-34A00	890259-34A00	890260-34A00
890261-34A00	890262-34A00	890265-34A00	890266-34A00	890267-34A00
890268-24A00	890268-34A00	890269-34A00	890270-34A00	890271-34A00
890272-34A00	890275-34A00	890276-34A00	890278-34B00	890279-34A00
890280-34A00	890281-34A00	890282-34A00	890285-34A00	890287-34A00

890288-34A00	890289-34A00	890290-34A00	890291-34A00	890292-34A00
890297-34A00	890298-34A00	890298-44A00	890299-34A00	890300-34A00
890301-34A00	890302-34A00	890306-34A00	890308-34A00	890310-44A00
890313-34A01	890314-34A00	890315-34B00	890316-34A00	890317-34A00
890318-24A00	890318-34A00	890325-74A00	890329-34A00	890330-34A00
890331-34A00	890332-34A00	890333-34A00	890334-34A00	890335-34A00
890336-34A00	890337-34A00	890338-34A00	890339-34A00	890340-34A00
890341-34A00	890342-34A00	890343-34A00	890344-34A00	890345-34A00
890346-34A00	890347-34A00	890348-34A00	890349-34A00	890350-34A00
890351-34A00	890352-34A00	890353-34A00	890354-34A00	890355-34A00
890356-34A00	890377-34A00	890378-34A00	890379-34A00	890380-34A00
890384-34A00	890525-34A00	890525-74A00	890526-34A00	890527-34A00
890528-34A00	890538-34A00	890539-34A00	890540-24A00	890540-34A00
890541-24A00	890541-34A00	890542-24A00	890542-34A00	890548-24B00
890548-34B00	890548-44B00	890586-34A00	890663-34A00	890664-34A00
890669-74B00	890772-24A00	890772-44A00	890773-24A00	890773-44A00
890774-24A00	890774-44A00	890775-24A00	890775-44A00	890776-34A00
890842-74A00	890882-44A01	890884-34A00	890885-34A00	890886-34A00
890964-34A00	890965-34A00			

.. 847 FILES COPIED
END
PCL PROCESSING TERMINATED

```
16:36 MAR 05,'82  ID=0393
ELAPSED JOB TIME                 00:48:00
PARTITION NUMBER                        8
TOTAL CPU TIME                    22.1308
   PROCESSOR EXECUTION TIME        3.8876
   PROCESSOR SERVICE TIME         18.2432
CARDS:  CARDS READ                      6
PAGES:  PROCESSOR PAGES                 7
TAPES:  DRIVES ALLOCATED                2
        TAPES MOUNTED                   2
CORE:   PEAK CORE(PAGES)                6
        PAGE.MINUTES             263.1201
I/O:    OPERATIONS                  47127
        CALS                      419518
FILE SPACE
   AVLBL DISK PERMANENT             98932
RESOURCES ALLOCATED
   9T=  2 CO= 48(PAGES)
```

```
13:49 MAR 06,'82 ID=038C (SIG /)
JOB :UTIL,UPR000000791,7, FILE=JCL:COPYALL, ID=5F,  LINE=1E
LIMIT (CORE,24),(91,2),(TIME,60)
PCL
COPYALL LT#M300 TO FT#M320#M321#M322#M323#M324#M325#M326(DEN(800))
```

850035-74B00	850605-64A00	850626-44A00	850626-84A00	850628-34A00
850629-24A00	850629-34A00	850634-34A00	850637-34A00	850638-34A00
850639-34A00	850640-44A00	850640-84A00	850641-34A00	850642-84B00
850643-24A00	850643-44A00	850644-44A00	850645-44A00	850645-84A00
850646-44A00	850646-64A00	850647-84B00	850648-44A00	850648-84A00
850649-34A00	850649-84A00	850650-34A00	850650-84A00	850652-34A00
850652-34A00	850653-34A00	850653-84A00	850655-44A00	850656-44A00
850656-84A00	850657-34A00	850658-34A00	850658-84A00	850659-44A00
850659-84A00	850660-74A00	850661-34A00	850662-34A00	850663-34A00
850665-84A00	850666-34A00	850667-34A00	850671-44A00	850675-34A00
850675-84A00	850676-34A00	850676-84A00	850677-34A00	850678-34A00
850680-24A00	850680-34A00	850681-34A00	850682-34A00	850684-44A00
850686-24A00	850687-34A00	850688-24A00	850688-44A00	850690-24A00
850690-34A00	850691-34A00	850691-84A00	850692-34A00	850693-44A00
850693-84A00	850694-44A00	850695-34A00	850696-34A00	850697-34A00
850698-34A00	850699-34A00	850699-84A00	850701-34A00	850702-34A00
850703-34A00	850704-34A00	850705-34A00	850708-34A00	850711-84A00
850712-34A00	850716-34A00	850717-34A00	850720-34A00	850721-34A00
850721-84A00	850722-34A00	850724-44A00	850724-84A00	850725-84A00
850726-44A00	850726-84A00	850727-44A00	850739-34A00	850740-24A00
850740-44A00	850741-24A00	850741-44A00	850742-34A00	850743-34A00
850744-44B00	850755-44A00	850755-84A00	850816-44A00	850831-34A00
850831-84A00	850832-34A00	850832-84A00	850833-34A00	850835-34A00
850836-34A00	850841-34A00	850842-34A00	850848-84A00	850857-34A00
850858-34A00	850859-34A00	850862-34A00	850864-34A00	850901-44A00
850914-24A00	850914-44A00	850915-24A00	850915-44A00	850916-44A00
850957-84A00	850963-34A00	850964-34A00	850965-34A00	850967-34A00
850968-34A00	850970-44A00	850985-34A00	850985-84A00	850986-34A00
850988-84A00	850989-34A00	850990-34A00	850991-34A00	850992-34A00
850992-84A00	851012-44A00	851014-34A00	851017-34A00	851019-44A00
851026-34A00	851027-44A00	851047-24A00	851047-34A00	851048-34A00
851048-84A00	851052-34A00	851054-24A00	851054-44A00	851055-44A00
851056-44A00	851057-44A00	851058-44A00	851060-44A00	851060-84A00
851062-44A00	851063-44A00	851064-24A00	851064-44A00	851101-34A00

851102-34A00	851103-34A00	851104-44A00	851104-84A00	851106-24A00
851106-44A00	851107-44A00	851107-84A00	851108-34A00	851108-84A00
851110-44A00	851110-84A00	851111-34A00	851111-84A00	851112-24A00
851112-44A00	851113-44A00	851113-84A00	851114-44A00	851114-84A00
851115-44A00	851115-84A00	851116-44A00	851116-84A00	851117-44A00
851118-44A00	851118-84A00	851119-44A00	851119-84A00	851121-24A00
851121-44A00	851122-44A00	851122-84A00	851123-44A00	851123-84A00
851124-44A00	851124-84A00	851127-44A00	851127-84A00	851128-44A00
851128-84A00	851130-44A00	851131-24A00	851131-44A00	851134-44A00
851134-84A00	851135-34A00	851136-44A00	851137-44A00	851143-24A00
851143-44A00	851144-44A00	851144-84A00	851145-34A00	851149-34A00
851150-34A00	851151-24A00	851151-34A00	851152-44A00	851154-44A00
851155-44A00	851156-44A00	851157-34A00	851159-34A00	851160-34A00
851161-34A00	851162-34A00	851163-34A00	851166-44A00	851167-34A00
851168-34A00	851169-24A00	851169-34A00	851170-34A00	851171-34A00
851173-34A00	851174-34A00	851175-34A00	851176-44A00	851176-84A00
851177-24A00	851177-34A00	851178-34A00	851179-34A00	851180-34A00
851181-44A00	851181-84A00	851182-34A00	851184-34A00	851185-34A00
851186-34A00	851187-34A00	851187-84A00	851188-34A00	851188-84A00
851257-84B00	851291-44A00	851292-24A00	851293-24A00	851294-24A00
851299-34A00	851300-64A01	851500-74D00	851579-44A00	851580-34A00
851580-34A00	851584-44A00	851585-44A00	851586-34A00	851587-34A00
851587-84A00	851588-34A00	851588-84A00	851589-34A00	851589-84A00
851590-34A00	851590-84A00	851591-34A00	851591-84A00	851592-34A00
851592-84A00	851593-34A00	851593-84A00	851594-34A00	851594-84A00
851595-34A00	851595-84A00	851596-34A00	851596-84A00	851597-34A00
851597-84A00	851598-34A00	851601-34A00	851604-34A00	851605-34A00
851606-34A00	851607-34A00	851610-34A00	851612-34A00	851613-34A00
851614-24A00	851614-34A00	851615-44A00	851616-44A00	851617-44A00
851618-44A00	851618-84A00	851619-44A00	851619-84A00	851620-44A00
851620-84A00	860000-74B00	860007-44A00	860007-84A00	860035-64A01
860563-84B00	860605-34A00	860606-24A00	860606-34A00	860607-44A00
860607-84A00	860608-44A00	860608-84A00	860609-44A00	860609-84A00
860610-84A00	860611-44A00	860611-84A00	860612-24A00	860612-34A00
860613-24A00	860613-34A00	860614-24A00	860614-34A00	860615-24A00
860616-24A00	860616-34A00	860617-24A00	860617-34A00	860618-24A00
860618-34A00	860619-24A00	860620-24A00	860620-34A00	860621-24A00
860621-34A00	860622-24A00	860622-34A00	860623-24A00	860623-34A00
860624-24A00	860624-34A00	860625-24A00	860625-34A00	860626-24A00

860626-34A00	860627-24A00	860627-34A00	860628-24A00	860628-34A00
860629-24A00	860629-34A00	860630-24A00	860630-34A00	860631-24A00
860631-34A00	860632-34A00	860633-24A00	860633-34A00	860634-24A00
860634-34A00	860635-24A00	860635-34A00	860636-24A00	860636-34A00
860637-24A00	860637-34A00	860638-24A00	860638-34A00	860639-24A00
860639-34A00	860640-24A00	860640-34A00	860641-34A00	860641-84A00
860642-24A00	860642-34A00	860643-24A00	860643-34A00	860644-24A00
860644-34A00	860645-24A00	860645-34A00	860646-24A00	860646-34A00
860647-24A00	860647-34A00	860648-24A00	860648-44A00	860650-24A00
860650-44A00	860651-24A00	860651-34A00	860652-24A00	860653-24A00
860653-34A00	860654-24A00	860654-34A00	860655-24A00	860655-34A00
860656-24A00	860656-34A00	860657-24A00	860657-34A00	860658-24A00
860658-34A00	860659-24A00	860659-34A00	860660-24A00	860660-34A00
860661-24A00	860662-34A00	860662-84A00	860663-34A00	860664-44A00
860664-84A00	860665-34A00	860665-84A00	860666-44A00	860666-84A00
860667-24A00	860667-34A00	860669-24A00	860669-34A00	860670-24A00
860670-34A00	860671-24A00	860671-34A00	860672-24A00	860672-34A00
860673-24A00	860673-34A00	860674-24A00	860674-34A00	860675-24A00
860675-34A00	860676-24A00	860676-34A00	860677-24A00	860677-34A00
860678-24A00	860678-34A00	860679-24A00	860679-44A00	860680-24A00
860680-34A00	860681-24A00	860681-34A00	860682-24A00	860682-34A00
860683-24A00	860683-34A00	860684-24A00	860684-34A00	860685-24A00
860685-34A00	860686-24A00	860686-34A00	860687-24A00	860687-34A00
860688-24A00	860688-34A00	860689-24A00	860689-34A00	860690-34A00
860692-24A00	860694-24A00	860694-44A00	860696-34A00	860696-84A00
860697-84A00	860698-84A00	860700-34A00	860716-34A00	860718-44A00
860718-84A00	860719-44A00	860720-34A00	860721-34A00	860722-34A00
860722-84A00	860723-34A00	860725-84A00	860726-24A00	860726-44A00
860727-44A00	860727-84A00	860729-44A00	860729-84A00	860730-34A00
860730-84A00	860731-24A00	860731-44A00	860732-24A00	860732-44A00
860733-34A00	860733-84A00	860734-24A00	860734-44A00	860737-44A00
860737-84A00	860738-44A00	860738-84A00	860739-44A00	860739-84A00
860740-44A00	860740-84A00	860743-24A00	860744-44A00	860744-84A00
860745-44A00	860745-84A00	860746-44A00	860746-84A00	860747-44A00
860747-84A00	860748-84A00	860749-24A00	860749-44A00	860750-84A00
860751-24B00	860751-34B00	860752-24A00	860752-44A00	860753-44A00
860753-84A00	860754-44A00	860754-84A00	860755-44A00	860755-84A00
860757-84A00	860758-84A00	860759-24A00	860759-44A00	860760-24A00
860760-44A00	860761-44A00	860761-84A00	860762-44A00	860762-84A00

860763-44A00	860763-84A00	860764-44A00	860764-84A00	860765-44A00
860765-84A00	860766-44A00	860766-84A00	860767-44A00	860768-44A00
860768-84A00	860769-44A00	860770-44A00	860770-84A00	860771-44A00
860771-84A00	860772-44A00	860772-84A00	860773-44A00	860773-84A00
860774-44A00	860774-84A00	860776-84A00	860777-44A00	860777-84A00
860776-44A00	860778-84A00	860779-44A00	860779-84A00	860780-44A00
860780-84A00	860781-44A00	860781-84A00	860782-44A00	860782-84A00
860783-44A00	860784-84B00	860787-44A00	860788-44A00	860789-44A00
860789-84A00	860790-44A00	860791-44A00	860791-84A00	860792-84A00
860793-44A00	860793-84A00	860794-44A00	860794-84A00	860795-44A00
860795-44A00	860796-24A00	860796-44A00	860798-24A00	860798-34A00
860799-24A00	860799-34A00	860800-34A00	861000-74D00	861076-44A00
861076-84A00	861077-24A00	861077-44A00	861078-24A00	861078-44A00
861079-24A00	861079-44A00	861082-24A00	861082-34A00	861084-24A00
861084-44A00	861085-24A00	861085-44A00	870000-84A00	870006-84A00
870007-84A00	870008-44A00	870008-84A00	890158-34A00	890159-34A00
890160-34A00	890161-34A00	890162-34A00	890163-34A00	890164-34A00
890165-34A00	890166-34A00	890167-34A00	890168-34A00	890169-34A00
890170-34A00	890171-34A00	890172-34A00	890173-34A00	890174-34A00
890175-34A00	890176-34A00	890177-34A00	890178-34A00	890179-34A00
890180-34A00	890181-34A00	890182-34A00	890183-34A00	890184-34A00
890185-34A00	890186-34A00	890187-34A00	890189-34A00	890190-34A00
890191-34A00	890192-34A00	890193-34A00	890194-34A00	890195-34A00
890196-34A00	890197-34A00	890198-34A00	890199-34A00	890200-34A00
890201-34A00	890202-34A00	890203-34A00	890204-34A00	890205-34A00
890206-34A00	890207-34A00	890208-34A00	890209-34A00	890210-34A00
890211-34A00	890212-34A00	890213-34A00	890214-34A00	890215-34A00
890217-34A00	890219-34A00	890220-34A00	890221-34A00	890222-34A00
890223-34A00	890224-34A00	890225-34A00	890226-34A00	890227-34A00
890228-34A00	890228-84A00	890229-44A00	890232-34A00	890233-34A00
890234-34A00	890235-34A00	890236-34A00	890237-24A00	890237-34A00
890239-34A00	890240-34A00	890241-24A00	890242-34A00	890243-24A00
890243-34A00	890246-34A00	890248-34A00	890249-34A00	890250-34A00
890251-34A00	890252-24A00	890253-34A00	890254-34A00	890255-34A00
890256-34A00	890257-34A00	890258-34A00	890259-34A00	890260-34A00
890261-34A00	890262-34A00	890265-34A00	890266-34A00	890267-34A00
890268-24A00	890268-34A00	890269-34A00	890270-34A00	890271-34A00
890272-34A00	890275-34A00	890276-34A00	890278-34B00	890279-34A00
890280-34A00	890281-34A00	890282-34A00	890285-34A00	890287-34A00

890288-34A00	890289-34A00	890290-34A00	890291-34A00	890292-34A00
890297-34A00	890298-34A00	890298-44A00	890299-34A00	890300-34A00
890301-34A00	890302-54A00	890306-34A00	890308-34A00	890310-44A00
890313-34A01	890314-54A00	890315-34B00	890316-34A00	890317-34A00
890318-24A00	890518-34A00	890325-74A00	890329-34A00	890330-34A00
890531-34A00	890332-54A00	890333-34A00	890334-34A00	890335-34A00
890336-54A00	890337-54A00	890338-34A00	890339-34A00	890340-34A00
890341-34A00	890342-54A00	890343-34A00	890344-34A00	890345-34A00
890346-34A00	890347-54A00	890348-34A00	890349-34A00	890350-34A00
890551-54A00	890352-34A00	890353-34A00	890354-34A00	890355-34A00
890356-34A00	890377-34A00	890378-34A00	890379-34A00	890380-34A00
890384-34A00	890525-34A00	890525-74A00	890526-34A00	890527-34A00
890528-34A00	890538-54A00	890539-34A00	890540-24A00	890540-34A00
890541-24A00	890541-34A00	890542-24A00	890542-34A00	890548-24B00
890548-34B00	890548-44B00	890586-34A00	890603-34A00	890664-34A00
890609-74B00	890772-24A00	890772-44A00	890773-24A00	890773-44A00
890774-24A00	890774-44A00	890775-24A00	890775-44A00	890776-54A00
890842-74A00	890882-44A01	890884-34A00	890885-54A00	890886-54A00
890964-34A00	890965-34A00			

.. 847 FILES COPIED

```
15:04 MAR 08,'82  ID=03HC
ELAPSED JOB TIME                 01:15:00
PARTITION NUMBER                        8
TOTAL CPU TIME                   21.7467
   PROCESSOR EXECUTION TIME       4.0291
   PROCESSOR SERVICE TIME        17.7176
CARDS:  CARDS READ                      1
PAGES:  PROCESSOR PAGES                 7
TAPES:  DRIVES ALLOCATED               2
        TAPES MOUNTED                  7
CORE:   PEAK CORE(PAGES)               6
        PAGE.MINUTES            216.6300
I/O:    OPERATIONS                 33223
        CALS                      419544
FILE SPACE
   AVLBL DISK PERMANENT           94843
NUMBER OF SWAPS                      12
RESOURCES ALLOCATED
   9T=   2 CU=  48(PAGES)
```