

SIGMA 6/7/9, XEROX 560 CP-V

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1.0 PRODUCT DESCRIPTION

1.1 Purpose

The C01 release of CP-V is a maintenance release of C00. It provides the initial version of CP-V technical documentation which will be expanded with each future release of CP-V. Approximately 400 SIDR fixes are included as well as three minor development projects.

1.2 Features

- Technical Documentation - An effort is being made to incorporate comments of specific format into the source files of each CP-V module. A report generator called EXTRACT (see Appendix A) extracts the comments and generates reports. These initial reports for C01 are included on the microfiche following the module listing in element 707000-59.
- CP-V Volinit - This new utility will enable the operator to surface test and initialize disk packs while CP-V is operational. The program will operate on-line, batch, or as a ghost. The program was not completely tested at the time of release material preparation and, therefore, will be available on a Software Support Tape.
- 3270 Support - CP-V Transaction Processing basic support of the IBM 3270 Information Display System has been made possible via a new Xerox 7605 handler and modifications to the Terminal Interface Controller (TIC) of TP. New TIC features have been added to support the screen and field capabilities of 3270s.
- FSAVE/FRES Private Packs - This is a near device speed, logical save and restore of files on a private pack. It will copy the files to a tape and back, as a part of file maintenance. It is not a pack to pack copy.
- Security - Several known holes have been plugged. The individual passwords for logging on to the system will be encoded by a one-way translator so that the internally remembered password will be of no use to someone trying to logon to a secure account. This is an optional feature which may be chosen or rejected by an installation.

1.3 Miscellaneous Improvements

- Sysgen provides a new command which allows an installation to specify a handler to be loaded with the root when all other handlers are included in the unmapped overlay.
- PROCs - The BPM SYSTEM procedures have been modified to assemble with AP. The UTS SYSTEM procedures have been modified to cause fewer REF and DEFs in MONSTK.
- ANLZ - Analyze has been overlaid more extensively so that it will run faster and also run properly on a 64K machine.
- Recovery - Recovery is faster and includes more I/O error checking.
- Tapes - ANS labels have been made more IBM Standard compatible and the header may be ASCII if the hardware provides the translation.
- Operations - The system processors may be restored from the PO tape without disturbing the rest of the file base during a boot under files. An attempt is made to preserve the batch queue with a boot from RAD.
- EDIT - The EDIT processor has received some attention in line with improvements suggested by users over the years. File commands have been shortened to one character and COBOL tabs have been included. Three new commands have been added (described fully in the -91C01 document);
 - TX - types only the records changed by an intrarecord command.
 - RP - preserves record size within a file and allows trailing blanks to be inserted.
 - CT - Like the CM command except that the record is typed up to the specified column.
- Loader - The expression stack is being compressed to facilitate loading the monitor on 64K machines.
- TEL - TEL now gets its messages from the ERRMSG file and is one page smaller.

1.4 Supporting Publications

Update packets for the applicable manuals will be available:

Batch Processing Ref. Manual.....	90 17 64F-1
System Management Ref. Manual.....	90 16 74G-1
System Programmers Ref. Manual.....	90 31 13A-1
Operations Ref. Manual.....	90 16 75G-1
Time Sharing Ref. Manual.....	90 09 07F-2
Time Sharing Users Guide.....	90 16 92D-3
Remote Processing Ref. Manual.....	90 30 26B-2
Transaction Processing Ref. Manual.....	90 31 12A-1
Data Base Technical Manual.....	90 19 95C-1
Reference Manual Update Description.....	707000-91C01

2.0 HARDWARE CONFIGURATION

CP-V runs in a minimum configuration of 64K words of memory; however, the minimum requirements are dependent on the options selected (for example, the TP option requires a minimum of 80K memory). Combinations of options may require more than the standard minimum of CP-V.

CP-V supports a larger than 128K memory on both the Sigma 9 and the Xerox 560. CP-V supports up to a 512K memory on the Sigma 9, and up to 256K memory on the Xerox 560.

3.0

SIDRS CLOSED

The following SIDRS have been closed in CO1:

SIDR NO	PCN
00004471	707017
00007757	707017
00009081	707018
00009352	707005
00009428	707014
00009666	707017
00009674	707017
00009676	707017
00009679	707017
00010193	707008
00010550	707017
00010614	707017
00010959	707012
00011136	707012
00011361	707017
00011440	707016
00011821	707003
00011989	707017
00011992	707003
00012155	707016
00012202	707006
00012283	707010
00020149	707002
00020157	707010
00020186	707018
00020283	707009
00020539	707009
00020614	707009
00020661	707003
00021301	707010
00021332	707011
00021386	707008
00021423	707017

1ST LINE OF ABSTRACT

BUILD FID,N,I
 WHEN EDIT IS ENTERED THRU AUTO CALL IT GIVES:
 THE M:DCB, M:SPEN PROCEDURES ARE EXTREMELY LIMITED IN THE FACILITIES
 AFTER A UTS CRASH:
 NEED ABILITY TO CONDITIONALLY (VIA OPERATOR) BRING IN THE ;SYS FILES
 1. EDIT SHOULD USE THE ERROR MESSAGE FILE AS SUB CODES ARE
 OPTIMALLY, THE ;TAI COMMAND SHOULD ALLOW THE USER TO SPECIFY
 A COMMAND SHOULD BE ADDED WHICH, LIKE ;CM, WILL ALLOW COMMENTARY
 ;BPI, ;CRI, AND ;TAI CAN, ACCORDING TO DOCUMENTATION, BE USED
 UTS SHOULD NOT REQUIRE THAT THE FIRST COB HAVE A DIS ADDRESS OF
 EDIT DOESNIT ACCEPT LOWER CASE CHARACTERS IN COMMANDS, MAKING
 EDIT ALWAYS DROPS TRAILING BLANK CHARACTERS FROM ITS RECORDS, THIS
 ACCOUNTING INFO OF ELAPSED JOB TIME UNDER CO1 UTS DOES NOT REFLECT
 IN THE ABSENCE OF TIME ON A LIMIT CARD, THE SYSTEM DEFAULT IS STORED
 DDD EDIT. USER INTERRUPTS EDIT COPY AND LOSES FILE. IN ORDER TO
 MISLEADING MESSAGE RECEIVED WHEN LOGGED UNDER ACCOUNT ZZZZ,
 RETRY FOR SWAPPER RAD IS PRESENTLY SET TO 5. RECOMMEND THIS BE
 IF SS OR ST COMMANDS ARE USED TO MODIFY A RECORD UNDER EDIT WITH
 SYSTEM HUNG IN A LOOP RESPONDING (LATER) TO ALL KEYINS.
 1) BATCH ACCEPTS COMMANDS IN J:CCBUF ONLY IF THEY ARE <= 52 CHARS.
 WHEN RUNNING A JOB WITH A SNAP DEBUG COMMAND, A S/C 7E OCCURS
 IT IS CURRENTLY IMPOSSIBLE TO ASSOCIATE BOTH A J LIBRARY AND A P
 SUPER OPTION READ=NONE. APPLIED TO PRIVILEGED ACCOUNT CAUSES
 THE REFS TO J:TREE AND J:TCB IN S:OVRLYR NEED TO BE REMOVED SO JOB
 M:SL IS ONE OF THE THREE MONITOR DCB'S THAT CANNOT BE ASSIGNID
 USER PROGRAMS WITH M:INT BREAK CONTROL CANNOT RUN UNDER USER DELTA
 IF PMDE IS SPECIFIED AFTER A CONTROL CARD TO EXECUTE A SHARED PROC.
 AS DESCRIBED IN THE REFERENCE MANUAL, IN THE ABSENCE OF M:DS DCB,
 RUNNER SHOULD DISPLAY THE MAJOR AND SUB CODES WHEN IT GETS AN
 LINK DOESNIT PUT ;P11 IN THE HEAD RECORD OF A LOAD MODULE THAT
 THIS SIDR DOCUMENTS THE CORRECTION OF SEVERAL XEROX 1200 SOFTWARE
 ALL STANDARD RESOURCES SUCH AS ;T ARE DEFINED EVEN IF THE TARGET
 CP-V EDIT (AND UTS EDIT) WILL EXPAND TABS IF THE SS OR ST COMMAND

SIDR NO	PCN	1ST LINE OF ABSTRACT
00021441	707017	ON AN SE COMMAND USER WOULD LIKE NO SUCH STRING COMMENT AS IN BTM,
00021560	707018	SYSTEM HAD BDU# = 500. WE PATCHED IT TO 99999. RESULT WAS THAT WE
00021569	707011	OUTPUT TO DEVICE CP (OR SYNONYMOUS LOGICAL DEVICES) WITH FBCD
00021642	707010	(PERM,LIB) ON THE LOAD_CARD SHOULD IMPLY (NOTCB) AS WELL. CURRENTLY
00021650	707014	WHEN A PROCESSOR IS DELETED WHICH OCCUPIES THE LAST SLOT IN THE
00021716	707018	A NUMBER OF SYMBOLS ARE OPENED IN SYSTEM UTS AND ARE UNAVAILABLE
00021717	707012	STATS ABORTS WHEN RUNNING ON A BATCH-ONLY SYSTEM BECAUSE OF
00021762	707017	THE FOLLOWING PROCEDURE PRODUCES WRONG RESULTS:
00021836	707003	STEP DOES NOT CORRECTLY INCREMENT AND DECREMENT THE FIELD PB;REP FOR
00021907	707003	PCL COPY TY TO ME OR COPY ME TO TY ALLOWS A USER TERMINAL TO TAKE
00022189	707017	CONTROL L WHEN IN EDIT UPSPACES THAN GIVES AN ILLEGAL SYNTAX
00022239	707016	RUNNER ABORTS WITH I/O ERROR 20/30 WHEN IT TRIES TO OPEN THE
00022356	707010	WHEN THERE IS NO DATA IN A PARTICULAR PROTECTION TYPE (SIZE *),
00022397	707017	EDIT SHOULD ACCEPT ONE-LETTER ABBREVIATIONS FOR ITS MAJOR COMMANDS;
00022519	707016	CCI BOO CONFUSES USERS WITH MESSAGE 'ILLEGAL OR INSUFFICIENT
00022641	707010	LINK PRINTS A ROMIS SEVERITY LEVEL IN A ONE-BYTE DECIMAL FIELD; A
00022791	707010	LINK DOES NOT WORK IN BATCH, LINK * PRODUCES MESSAGE 'UNEXPECTED
00022802	707016	THE DCB F:Q1 IN APL=BOO COULD NOT BE ASSIGNED TO AN INPUT FILE, IN
00022812	707013	SC 7E+40 AND/OR SUA CAUSED WHEN STEP FAILS TO CLEAR J:ABUF, ADDRESS
00022832	707013	DATA REPLACEMENT VIA BATCH PROCESSOR EXEC COMMAND ONLY WORKS FOR
00022843	707016	IF CCI FINDS AN ERROR IN A COMMAND THAT IS CONTINUED, THE
00022877	707003	TWO JOBS REQUIRE SAME UNBOUNDED SHARED PACK, WONT RUN
00022879	707018	SHOW DOES NOT HANDLE MULTIPLE SERIAL NUMBERS.
00022881	707002	FILL WILL LOOP IN MAILBOX ROUTINE IF AN ERROR 75 OCCURS,
00022883	707013	LOOP IN MONITOR REQUIRING OPERATOR RECOVERY. CURRENT USER IS JI1
00022884	707001	FILL SHOULD NOT SNAP BUFFERS ON AN ERROR 1401.
00022886	707002	PREVENT DUPLICATE KEYS IN FILES.
00022887	707002	DIAGNOSTIC OPEN TO NON-TAPE DEVICE CRASHES SYSTEM.
00022892	707003	.(COO3) FORTRAN TEST ABORTS WITH B606 ABORT
00022918	707018	4614 ERR/ABN OCCURS WHEN OPENING FILE WITH NO SET GIVEN. THUS
00022920	707018	TPG COMPLAINS ABOUT RE-DEFINITION OF QUEUE DISPIE THE DELETION
00022926	707015	THE IO ACTIVITY (IN THE ELLA SUMMARY) IS INCORRECT (AND OFTEN NEG-
00022954	707013	REAL-TIME PROGRAMS RUNNING UNDER USER DELTA GET INTO TROUBLE

SIDR NO	PCN	1ST LINE OF ABSTRACT
00022980	707003	SCHED LOCKOUT WHEN BDRIS > BPRIS DUE TO FAILURE TO
00022985	707000	FSAVE TRAPS ATTEMPTING TO EXECUTE A PRIVILEGED INSTRUCTION IN
00022994	707013	CBBF FILE MANAGEMENT DOES NOT PERFORM ECB POSTING AS EXPECTED,
00023030	707012	SUPER TESTS GIVE STRANGE SUMMARIES FOR CASES WITH ERRORS (COOF)
00023059	707015	THE ERROR FILE STILL CONTAINS DEVICE FAILURE ENTRIES WITH SPURIOUS
00023067	707002	COOG ON SEVERELY DAMAGED TAPES THE MAG TAPE HANDLER WRITE RECOVERY
00023070	707003	EXECUTE ONLY PROCESSOR SHOULD NOT BE PROHIBITED FROM ASSOCIATING
00023096	707016	BATCH DOES NOT REPLACE STRINGS RELIABLY, * SAME FOR FIELD
00023098	707005	CP-V 800 INITR0VR HANGS AT +EE IF M:SWAPD IS BAD. SYSTEM MUST CHECK
00023182	707009	A PROGRAM WHICH WHEN RUN PRODUCES A FIXED POINT OVERFLOW TRAP
00023266	707012	ACCOUNT A & B, BILL IS ACCEPTED BY SUPER AS A VALID ACCT BUT IS
00023289	707002	SINGLE USER ABORT 46-21 (PRIVATE VOLUME LOGIC INCONSISTENCY) OCCURS
00023341	707000	SOFTWARE CHECK 61 *SINGLE USER ABORT, USER ASSOCIATED WITH EASY.
00023387	707003	HOW DOES IBCSPI GET TO BE NEGATIVE SOMEHOW IN THE COURSE OF
00023399	707010	LOADER GETS I/O ERROR 4300 WITH A QUESTIONABLE TREE COMMAND. IT
00023451	707002	THE ATTACHED TEST CASE DEMONSTRATES THE INTERMITTENT FAILURE OF THE
00023452	707017	THE HARDWARE OF THE 7275 DISK DRIVES PRODUCES AN INTERRUPT WHENEVER
00023454	707001	FILE 'CSFKEY' HAD FILE INCONSISTENCY 9/20. FSAVE ALL THAT NIGHT
00023464	707004	CBB9L PRINTED OUTPUT NOT BEING HANDLED CORRECTLY AT DATA-100 IRBT.
00023472	707001	PACKREC9N WILL ONLY RUN UNDER THE ACCOUNT WHICH OWNS THE PACKS
00023501	707017	FOLLOWING ITY! OF A NON-EXISTENT RECORD, AN INTRA-RECORD COMMAND
00023533	707002	BRANCH TO 0 DURING TAPE CLOSE,
00023534	707002	ANS TAPES CAUSE 7E-40 FROM AVR ROUTINE.
00023535	707011	THE COUNT OF CURRENT LINES ON THIS PAGE IS NOT RESET BY A TOP OF
00023537	707012	I/O ERRORS 45 AND 57 GO UNDETECTED BY ACCTSUM WHEN WRITING USERS
00023543	707016	LOAD MODULE GETS RELEASED WHEN MAPONLY OPTION IS SPECIFIED ON LOAD
00023544	707016	ERROR MESSAGE BUTPUT ON THE FOLLOWING LEGAL PMD COMMAND.
00023545	707002	(COOG) PRIVATE PACK TESTS CAUSE SINGLE USER ABORT
00023548	707008	LOCCT PROCESSOR SHOULD ACCEPT ANY ALPHANUMERIC CHARECTERS AS A NAME,
00023549	707008	DEF WHEN CREATING A PS TAPE COPIES KEYED FILES, FOR SOME OBSCURE
00023550	707016	BATCH RUNNING AS A GHOST WILL NOT SUBMIT MULTIPLE JOB WITHIN 1
00023551	707002	THE CFU GARBAGE COLLECTOR CAN PROPAGATE TRASH IF THE CFU NAME
00023553	707002	ACCESS VEHICLE COPE FOR EXECUTE ONLY FILES NEEDS MORE STRINGENT

SIDR NO PCN

1ST LINE OF ABSTRACT

00023555 707016 REMOVE UNNEEDED CODE IN CCIR DUE TO FUNCTION BEING PERFORMED IN
 00023556 707002 PRIVATE PACK KEYED FILES OFTEN GET 75*07 ERRORS.
 00023557 707007 OVER 8 'BLPI' KEYINS ARE DISALLOWED ON A FULLY PROTECTED
 00023558 707007 SCRATCH OUTPUT ON DISPLAY TAPES WAS LOST IN COO.
 00023560 707003 DATA OVERUN MAY BE FORCED TO OCCUR ON A SIG 9,
 00023563 707011 RBSWITCH IS NOT RE-ENTRANT.
 00023564 707011 ERRORS ARE PUNCHED ON NON-PUNCH DEVICES
 00023566 707011 ETMF ON RINFO IDAS EXTRA CHAR
 00023568 707019 RECOVER /RCUCTLT,238/BEZ RCVCTL+, 236 (BEZ RCUCTL T. 23D)/
 00023571 707002 USE OF AIR (READ-AHEAD) CRASHES SYSTEM.
 00023572 707018 THE SIZE OF MONSTK SHOULD BE REDUCED.
 00023573 707008 CLEANUP OF REDUNDANT AND UNNECESSARY CODE.
 00023574 707003 DCT12 MAY HAVE LEFT OVER GARBAGE FOLLOWING A SYSCON PRE-EMPTION OF
 00023575 707003 WHEN AN SIG IS ISSUED (BY IOQ) FOR AN IOEX REQUEST AND THE
 00023576 707001 IF FRES IS ABORTED BY THE MONITOR THE EXIT CONTROL ROUTINE SHOULD
 00023577 707001 IF FSAVE IS ABORTED BY THE MONITOR THE EXIT CONTROL ROUTINE
 00023578 707001 FILL SHOULD NOT GENERATE AND ERROR SNAP AN 4100 ERRORS
 00023579 707010 ON LOAD OF THE MONITOR WITH AN EMPTY JMSV OVERLAY, THE LOADER
 00023581 707010 AFTER ASSOCIATING A LIBRARY, THE LOADER FORGETS TO RELEASE PAGES
 00023582 707002 OPENING RANDOM FILE IN AND INOUT AT SAME TIME MAY CAUSE CFU
 00023583 707002 FIX TRAPS WHEN IT ENCOUNTERS SEVERAL TYPES OF BAD FILES
 00023584 707001 COGG FILL TRAPS IF A COMMAND IS ENTERED WITH A MOUNT PENDING.
 00023585 707002 MOUNT, PUBLIC! FREQUENTLY STEALS SPINDLES.
 00023586 707005 RVGH0ST DGES NOT GET STARTED BY RECOVERY WHEN SINGLE USER ABORT
 00023587 707003 TDV STATUS, FOLLOWING A READ BACKWARD OR SPACE BACKWARD TO LOAD
 00023588 707003 SOME MAG TAPE (ERROR) MESSAGES TO THE O.C. ARE NOT BEING SENT.
 00023589 707011 SLAVE SIGNON COMMAND HAS BAD CRC
 00023590 707005 RECOVERY SHOULD SAVE THE MONITOR TABLE DCT25.
 00023591 707016 REMOVE CODE FROM CCIR WHICH CREATES D STAR FILE (T) BY DEFAULT
 00023592 707016 IT IS POSSIBLE FOR CCI TO SCAN GARBAGE LEFT OVER FROM A PREVIOUS
 00023594 707002 RELEASE OF RANDOM FILE ON PRIVATE PACK MAY CAUSE S.C. 7E.
 00023595 707014 WHEN BOOTING THE P0 TAPE THE 'CI' OPTION TO READ PATCHES EXCLUSIVELY
 00023597 707003 ACCESS PROTECTION FOR PROCESSORS WITH SPECIAL JIT ACCESS IS LOADED

SIDR NO.	PCN	1ST LINE 9F ABSTRACT
00023598	707003	IF MM WOULD CHECK JBLMAR TO SEE IF USER HAD PREVIOUSLY PERFORMED
00023605	707018	SC 34-00 CAUSED BY QUEUE CONTENTION DURING HEAVILY
00023606	707003	UPDATE ERRORS IN COOG ALTCR. (COOG)
00023610	707002	PRIVATE PACK TESTS HUNG, SUA FORCED. (COOG**)
00023612	707002	PRIVATE PACK TESTS JBMULTC AND JBPACTB CONTINUE TO FAIL (COOG)**
00023614	707002	(COOG) FILES SOMETIMES DISAPPEAR
00023617	707002	COOG S.C. 7E WHEN FILL EXITS
00023618	707002	COOG DISC ADDRESS IN ERRLOG FOR 75 ERRORS IS OFTEN WRONG
00023619	707002	SETID IN ANS LABELS IS INCORRECT IF THE TAPE IS MULTI-VOLUME AND
00023620	707002	(COOG) FOR SYSTEMS WITH NS TAPES, MISC. PORTIONS OF THE AVRTBL ARE
00023621	707002	ERRORS OCCURRING DURING AUTOMATIC CVBL ARE NOT DETECTED UNTIL
00023622	707002	TAPE SERIAL NUMBER POINTER IS INCORRECT FOLLOWING A CVBL
00023627	707005	COOG. RECOVERY LOOPS IF REMOTE BATCH STATION CONNECTED AT TIME OF
00023628	707005	BAD BYTE COUNT FOR ILAST RECORD SUPPLIED BY RE-START MESSAGE FROM
00023629	707002	ANS MULTI-VOLUME, READ REVERSE FAILS ON ERROR 4E.
00023633	707002	COOG. CERTAIN CASES OF BAD FILE DIRECTORY GRANULE ARE NOT HANDLED
00023635	707001	FSAVE SHOULD MAKE SURE ALL I/O IS COMPLETE IN EXIT CONTROL ROUTINE
00023647	707002	ANS TAPE RUNS AWAY AND CAUSES SC79 IF ZERO BYTES READ. (COOG)
00023648	707002	DUE TO MONITOR CHANGES, THE PCL SEQUENCE LIST LT#X/A, SPE LT#X,
00023653	707002	S/C 19 WHEN LISTING GENMODS DURING 888T -USING 7446 LINE PRINTER.
00023654	707004	LINE #0 UNABLE TO LOG ON (H98KED TO USER#1) WHEN #0F C0C LINES IS
00023655	707002	WHEN KEYIN REJECTS A MOUNT TYPE KEYIN THAT INCLUDES A UNIT
00023656	707002	COOG 'INCONSISTENT STATUS' MESSAGE
00023658	707002	EXPIRATION DATE ON LABEL TAPE IS ALWAYS WRONG. (COOG)
00023660	707019	SYMBIANTS BLOCKED WHEN TP RUNNING (COOG**)
00023661	707003	PASS 2 SHOULD PRINT #9E ERRORS AND WARNINGS IN DECIMAL
00023662	707008	COOG PASS2 SHOULD AV6ID BUILDING TEMP FILE. SOMETIMES
00023664	707002	GRANULE CLEANING DOES NOT WORK IN REAL EXTENDED MODE (COOG**)
00023665	707008	PASS2 SHOULD GENERATE IWB(2) DUB[EWORDS FOR THE MC DEVICE. (COOG**)
00023666	707011	REMOTE TERMINAL LINES DON'T STAY RBXIED ACROSS RECOVERYS. (COOG)
00023667	707009	#UM9V=0 DOESINT WORK. (COOG)
00023668	707014	P0 TAPE FILES DATES ARE TOO RECENT. (COOG)
00023669	707002	AURID IS BEING SET INCORRECTLY SOMETIMES, MAY CAUSE S.C.22

SIDR NO	PCN	1ST LINE OF ABSTRACT
00023670	707003	COOG DOESN'T USE SYMBIANT SPACE. (COOG)
00023675	707013	C00G
00023676	707003	I00 ENABLES T00 S00N AT CLEANUP. COULD CAUSE A SC-7E/40 ON A
00023679	707002	ALWAYS LOSE BATCH QUEUE WHEN PACK SWAPPING SYSTEM CRASHES. (COOG**)
00023680	707017	PCL IS DRIPPING RECORDS WHEN DEBLOCKING ANS TAPE RECORDS. COOG.
00023681	707017	PCL ABBRTS WITH AN A E00 YOUR CALL REFERENCES A NON-EXISTENT
00023682	707008	PASS3 SHBULD AVOID BUILDING HANDLERS2 FILE IF N0 HANDLERS2 CC.
00023683	707008	PASS2 NEGLECTS TO SET DP SWAP FLAG IF DP SWAPPER IS A 7275 OR 7261.
00023684	707008	PASS2 SHOULD PERMIT THE DESIGNATION OF A 3275 AS A DP SWAPPER.
00023687	707002	PREF IN DPSI0. C00G.
00023688	707002	SOME SYSTEMS MAY EXPERIENCE S.C. 7E AFTER HGP RECONSTRUCTION
00023689	707008	C00G. UNDER CERTAIN CONDITIONS RAS1 W0NT BE PUT IN SPECIHAND FILE
00023691	707004	IF JB:LPP IS FROM 2 THRU 10, A BAL ADR IN C0C GETS Clobberred,
00023692	707002	ATTEMPTS TO USE A TAPE WITH THE SAME SN AS A PACK CAN CAUSE
00023693	707003	STERNR SHOULD ALLOW BY PASS OF RP CHECK ONLY FOR >C0 PRIV N0T >*
00023695	707003	SWAPPER NOT ALLOCATED PROPERLY FOR 3214 CAUSING LOSS OF LATELY.
00023696	707003	PASS3 SHBULD ALLOW ANY FILE NAME FROM 1-11 CHARS SET FOR FILLOADER
00023697	707019	TWO SOFTWARE CHECKS 34 WHILE RUNNING TP.
00023698	707001	VERSION C00G *-TUL ON A FILL PURGE, WITH PU SET TO ONE,
00023699	707001	VERSION C00G *-TUL .FILL ABBRTS WHEN THRESHOLD NEARS ZERO.
00023701	707003	VERSION C00G *-TUL. SYSTEM IS GENVED WITH 4 REAL PLUS 5 PSEUDO
00023703	707015	VERSION C00G *-TUL. ON 000T, WHILE PRINTING TO 7446 LP WHICH HAS
00023704	707002	VERSION C00G *-TUL. AFTER COMPLETING HGPRECON, SYSTEM CRASHES WITH
00023706	707007	VERSION C00G *-TUL. RBT (7670) HAD BEEN PARTITIONED, OPERATOR
00023728	707005	C00G PFSR MUST NOT ENABLE BEFORE WRITE LOCKS AND ACCESS
00023730	707008	C00G PASS2 DOES NOT HANDLE CLUSTER 1;1 CORRECTLY
00023731	707017	C00G. REGRESSION ERROR IN PCL FREE FORM TAPE
00023738	707008	DEF IS THE ONLY SYSGEY PROCESS REQUIRING PAPER 14 INCHES WIDE.
00023789	707009	E00 FORTRAN 9D0R CAUSES TRAP 40 IN DELTA
00023797	707002	ENCLOSED LISTINGS SHOW A PROBLEM WHICH HAS BEEN PLAGUING US RECENTLY
00023806	707003	USERS ARE ALLOWED MORE CORE THAN SPECIFIED ON LIMIT CARD.
00023815	707009	DELTA DOES NOT CLEAR ITS PRINT BUFFER WHEN PRINTING O CORE DUMPS,
00023820	707016	THE ATTACHED LOAD JOB CAUSES A SUA 61-40 IN THE LOADER ROUTINE OF

·SIDR NO	PCN	1st LINE OF ABSTRACT
00023831	707003	WHEN LDEV IS LINKED IN, THE FORM FIELD IS IGNORED OR PRODUCES AN
00023891	707000	ANLZ OBTAINS PAGES WITH SAD CAL AND THEN ISSUES A 2048 BYTE CBC
00023907	707001	FRES IS UNSATISFACTORY FOR USE WITH RANDOM FILES, WHEN RESTORING A
00023914	707017	IF A PCL COPY STANDARD GETS AN I07001 ERROR THE OUTPUT FILE IS
00023922	707012	ASSIGNING VFC TO MILL YIELDS STRANGE END-OF-JOB SUMMARIES, SUGGEST
00023929	707001	IRANFILE! ROUTINE IN FSAVE DOES NOT HANDLE EXTENDED ADDRESSING
00023932	707017	DOO EDIT, EDIT SHOULD HAVE A NEW INTRA-RECORD COMMAND TX .
00023962	707004	REMOTE PROCESSING.
00023965	707004	HASP IRBT HANDLER.
00023968	707016	TEL COMMAND B <BAD FID> GIVES DIAGNOSTIC AND RETURNS TO EDIT, NOT
00023970	707000	CURRENTLY THE OPERATOR HAS THE CAPABILITY OF WIPING OUT THE SYSTEM
00023982	707008	PASS2 WILL NOT ACCEPT IOP ADDRESS HIGHER THAN 7.
00023986	707015	OCCASIONALLY THE ERROR LOG INDICATES INCORRECT VOLUME SERIAL
00024034	707009	WHEN AN XW INSTRUCTION REFERENCES A PAGE OF MEMORY THAT HAS A
00024047	707002	SC 17 DUMP, USER ICL AND PASS2 INCLUDED, WE HAVE 2 TYPES OF PRIVATE
00024061	707002	7-TRACK MAG TAPE SIMULATED READ BACKWARD DOES NOT REPORT A VALID ARS
00024064	707003	JOB STEP ONLY CLOSES DEVICE DCB'S THE USER LEFT OPEN IF DEVICE TYPE
00024066	707012	SWAP TIME HISTOGRAMS PRODUCED BY STATS ARE WRONG, SCALING AND
00024067	707011	RP HANDLERS GET WRITE LOCK VIOLATIONS,
00024068	707011	MINREC DOESN'T WORK PROPERLY.
00024069	707016	THE RUN CONTROL COMMAND WITH NO LMN OPTION SPECIFIED SHOULD RUN
00024070	707003	INITIATING A GHOST JOB (VIA BAL TO TIGJOBSTRT) THAT ALREADY IS IN
00024071	707008	TSERIAL OVERLAPS RSERIAL.
00024073	707002	DELETING PRIVATE RANDOM FILES (RUNNING SORT) GIBBLES GRANULES.
00024074	707017	COOG-PCL ANS TAPE TO ANS TAPE COPY DOES NOT
00024075	707017	COOG PCL COPIES A 1600 BPI TAPE WHEN 800 BPI IS SPECIFIED
00024076	707003	UH:FLG IS NOT RESTORED ON MILDTRC FOLLOWING MCLINK
00024077	707016	REMOVE CODE IN CCI WHICH RECOGNIZES PPMO AS A LEGAL CONTROL COMMAND.
00024078	707002	THE OPENTP OVERLAY HAS INSUFFICIENT ROOM TO DEPATCH THE COO PATCH
00024079	707009	START ADDRESS SPECIFIED AS HEXADECIMAL IN RUN CARD IS IGNORED.
00024080	707016	SHOW COMMAND IN TEL DOESN'T CHECK FOR JOB STEP & WILL OVERWRITE
00024083	707003	ERRORS IN REAL-TIME PAGE ALLOCATION

SIDR NO	PCN	1ST LINE OF ABSTRACT
00024084	707013	SYSCON MAINTAINANCE OF M:NONNUM FILE SHOULD BE ABLE TO BE DONE
00024088	707000	ABORT CODE IS NOT AE=00 WHEN M:ENQ ATTEMPTED ON NON=ENQ SYSTEM,N
00024090	707004	ENTERING ONLY AN ATTN BY A 2741 WITH READ PENDING AND NO OTHER INPUT
00024093	707010	LINK # NO LONGER WORKS IN BATCH. (IT WORKED IN 800)
00024094	707012	S/C 61 CAUSED BY LOGON ATTEMPTING TO ZERO OUT THE ERR/ABN
00024096	707012	SECURITY PROBLEM IN LOGON AND CCI.
00024098	707002	I/O ERROR 14=00 SHOULD BE SPLIT INTO SEVERAL DIFFERENT CODES
00024099	707018	IIC IS ABORTING FOR A MEMORY PROTECT VIOLATION.
00024103	707016	JOB WITH MULTIPLE LIMIT CONTROL COMMANDS, THE FIRST OF WHICH IS IN
00024104	707003	PWP WAS CHECKING THE VALIDITY OF AN INPUT VIRTUAL PG# TO BE ASSIGNED
00024107	707002	THE 'BLPI' OPTION FROM A MOUNT KEYIN IS EFFECTIVELY IGNORED IF THE
00024108	707017	IT IS SOMETIMES POSSIBLE TO BREAK OUT OF LDEV AND RETAIN CO PRIV.
00024109	707014	GHOST1 DOES NOT GIVE ERROR MESSAGE WHEN LMN IS TOO BIG, SYSTEM DOES
00024112	707013	THE TARGET OF AN M:LINK, EXECUTED IN AN EXIT CONTROL ROUTINE, CANNOT
00024113	707017	COPYALL DOES NOT HAVE A DENSITY OPTION
00024114	707009	DELTA SHOULD UTILIZE THE COUNT FIELD IN SYMBOL TABLE ENTRIES TO HELP
00024115	707016	TEL SHOULD USE THE ERRMSG FILE FOR ITS ERROR MESSAGES, THE GROUP 3
00024116	707002	CANNOT WRITE MULTI-VOLUME TAPES AT 800 BPI ON NS DRIVES, CLOSE
00024117	707002	THE ADVANTAGES OF LABELS, WITH SPEED AND COMPACTION ADVANTAGES OF
00024118	707003	IF A USER WITH BOTH DELTA AND A CORE LIBRARY ASSOCIATED EXECUTES A
00024119	707016	TEL DOESNIT RECOGNIZE RESOURCE NAME ON.SET COMMAND.
00024124	707000	TSP MAY BE SET UNREASONABLY HIGH (PUBLIC FILE STORAGE SPINDLES
00024125	707002	LINKED USER CANT REMOVE (PUBLIC) PRIVATE PACK,
00024126	707002	A SOFTWARE CHECK 7E OCCURS WHEN SCRATCH RANDOM FILE PAGES ARE
00024128	707008	:BIGXSIZ IS NOT SET TO X12001 FOR BIG MEMORY SYSTEMS,
00024129	707004	MBCIOP SHOULD BE ABLE TO PERFORM ITS I/O SETUP FUNCTIONS WITH ONE
00024130	707002	BATCH QUEUE MAY BE LOST DURING CRASHES ON SYSTEMS WITH MORE THAN
00024131	707013	WHEN MIMERC IS USED TO REPORT AN I/O ERROR, THE ADDRESS SHOWN ON
00024133	707013	ON-LINE DIAGNOSTIC INTERFACE USES J:CLS FIELD IN J*1 WHEN USER
00024134	707019	SINCE ECBPOST1 NOW ALWAYS USES THE 4-WORD BLOCK, MODULES WHICH CALL
00024135	707000	MURBIT GETS LOST LUGGING ON RBT
00024137	707002	FIX SOMETIMES DUMPS 180 MANY DCB PAGES FOR FREPORT,
00024138	707009	WHEN A STORE INTO A LOCATION PROTECTED BY A DATA BREAKPOINT IS

SIDR NO

PCN

1ST LINE OF ABSTRACT

00024139	707009	THE FOLLOWING ITEMS SHOULD BE CHANGED IN DELTA;
00024140	707008	PASS2 SHOULD NOT ALLOW PSA+PER+PFA TO BE LESS THAN THE DEVICE SIZE.
00024142	707017	PCL COPYSTD DEFAULTS TO 2T IF DENSITY IS SPECIFIED.
00024143	707010	RDEF OPTION CAUSES TREE TO BE RE-WRITTEN WITH THE SEGMENT NAME
00024145	707016	THE DEFAULT FOR THE READ OPTION ON AN ASSIGN CONTROL COMMAND SHOULD
00024146	707002	SHARED KEYED FILES ARE OFTEN LEFT BUSY.
00024147	707010	LOADER CHKLM ROUTINE DOES NOT TAKE BYTE DISPLACEMENT ON
00024148	707008	PASS 2 GENERATES INCORRECT HANDLER ENTRY POINTS FOR 7242 DP'S.
00024150	707014	WHEN VALIDATING DEV, VS, CNT, MDEL #'S AS A ;TYPE COMMAND IS
00024151	707008	THE SYMBOLS ;BIGX512 IS NOT SET TO 512 WHEN A BIG 560
00024152	707002	WHEN A USER RUNNING UNDER DELTA SETS A DATA BREAKPOINT IN THE
00024153	707002	THE CFU GARBAGE COLLECTOR MAY SCRAMBLE THE CFU AREA.
00024154	707011	RETRY ON OUTPUT POLL TIME BUT SHOULD REPEAT POL NOT JUST READ.
00024156	707016	TEL & CCI MUST NOT ALLOW A/M ENTRIES FOR IM;* OR IM!*.
00024157	707003	STEP MUST OPEN M;SEGLD OR EXECUTE ONLY OVERLAID LMNS WILL NOT RUN.
00024160	707002	HGP RECONSTRUCTION ABORTS IF SEVERAL DUAL ALLOCATIONS ARE FOUND.
00024163	707003	SOFTWARE CHECK 79 CAN OCCUR WHEN AN INTERRUPT SIGNAL IS LEFT HIGH
00024164	707003	THE JIT DEFIS PUF AND JPUF ARE CONFUSING, SINCE THEY DON'T REFER
00024165	707002	J;PMTS AND J;TMTS (PACK MOUNTS AND TAPE MOUNTS) ARE NOT BEING
00024167	707012	WHEN ACCYSUM OPENS *.FILES, IT MUST FIRST MOVE THE SYSID FROM
00024169	707010	LINK SHOULD BY DEFAULT NOT DISPLAY CONFLICTING INTERNAL SYMBOLS.
00024175	707011	REMOTE PROCESSING TERMINAL SOMETIMES CANNOT LOG ON
00024261	707003	WHEN USER TAKES EXIT CONTROL, NET CHANGE IN ACCUMULATED RAD STORAGE
00024281	707002	SCREECH 7E-40
00024289	707008	PASS 2 PERMITS THE PERPETUATION OF A CONFLICT WHICH RESULTS IN A
00024297	707000	RANDOM SORT ON PRIVATE PACK WITH BLOCKED FILES FAILS WITH MEMORY
00024309	707002	TERRIFIC SECURITY SYSTEM WHEN ANY 40 PRIVILEGE USER CAN RUN LISTDIR,
00024326	707000	ON PAGE 32 OF THE CP-V SYSTEM MANAGEMENT REFERENCE MANUAL THE N1
00024339	707016	THE CONTROL CARD SEQUENCE
00024345	707003	THE CODE IN CLOCK4 WHICH UNCHAINS A ONESHOT TYPE 3 ICB FROM THE
00024357	707013	EASY SUBSYSTEM TOTALLY IGNORES BREAKS WHEN IN LIST COMMAND,
00024359	707016	INVALID 'ILLEGAL ALPHANUMERIC NAME' MESSAGE FOLLOWING THE THIRD
00024398	707004	HASPI@ LINE 910 CONTAINS LI,R1 XPIBIT INSTEAD OF LW,R1 XPIBIT.

SIDR NO PCV

1ST LINE OF ABSTRACT

00024407 707005 WHEN ANLZ FORMATS A USER'S ISTACK FOR A DUMP PRINTOUT, THE
 00024412 707000 THE ELLA PROGRAM OCCASIONALLY REPORTS ERRONEOUS TIMES.
 00024429 707008 PASS2 DOES NOT CHECK FOR DUPLICATE NAMES IN MONITOR OVERLAY TABLE.
 00024436 707007 THE SOURCE PATCHES TO DISPLAY AT +626 DO NOT ALLOW FOR R4 CONTAINING
 00024440 707014 AFTER BOOTING WITH PFTC USING 7446 PRINTER, THE LAST GENMD CARD IS
 00024464 707013 BATCHING A JOB FROM A TERMINAL CONSISTING OF JOB; ANYTHING
 00024487 707001 FSAVE DOES NOT RECOGNIZE OR HANDLE SYNON FILES CORRECTLY.
 00024491 707003 A USER WHO IS RESTRICTED FROM PROCESSORS THROUGH SUPER
 00024494 707008 PASS2 FAILS TO REPORT WHICH DEVICE IT IS REFERRING TO IN
 00024520 707000 WHEN A USER FIRST LOGS ON TO CPV AND GIVES THE FORTH COMMAND WITH A
 00024525 707017 ASSUME FILE X CONTAINS MORE THAN 9999 RECORDS, PCL COPY X OVER
 00024539 707012 ;ACCTLG HAS RECORDS WITH ORIGIN OF 02(RBT), WHEN SYSTEM DOES NOT
 00024543 707017 EDIT SHOULD HAVE A COMMAND TO ALLOW SETTING OF TABS FOR
 00024549 707011 WHEN DATA=100 IRBT IS SIMULTANEOUSLY SENDING CARD JOB TO CPV, AND
 00024553 707001 FSAVE LISTS ALL CONSEC FILES AS HAVING 320 BYTES, SIDRED AT SL2
 00024566 707016 CCI WILL NOT ACCEPT SPARE PARAMETER IN ASSIGN CARDS.
 00024567 707001 WHEN RUNNING FILL BACKUP OR SQUIRREL, SYSTEM EITHER HANGS IN LOOP
 00024572 707008 PASS2 FORCES USER SUPPLIED HANDLERS INTO <UMOV> IF ;HANDLERS2 IS
 00024581 707008 A SYSTEM GENERATED WITH THE UNMAPPED OVERLAY AND HASPI0 WILL RESULT
 00024593 707014 PATCH; ;SYS NEEDS TO HAVE THE NO-AUTO-BACKUP BIT SET.
 00024596 707014 WHEN SYSMAK DISCOVERES ERRORS IN CRITICAL SYSTEM LOAD MODULES (I.E.
 00024601 707010 LINK-BUILT M:BI DCB CONTAINS DEFAULT FUNCTION OF BUT RESULTING IN
 00024605 707017 THE BATCH PROCESSOR COMMAND OPTION (S) FAILS TO WORK.
 00024606 707007 DEVICES RECONFIGURED BUT OF SYSTEM ARE LISTED WHEN THE ;DISPLAY
 00024612 707009 PMDE FAILED TO DUMP OF PROTECTION TYPE OF OVERLAY AND DUMPED
 00024650 707013 SIDR 23750 REQUESTED THAT READS TO 9C WITH DRC RESET CAUSE OUTPUT OF
 00024655 707010 LOADER LOOPS INDEFINITELY UNTIL SYSTEM TIME LIMIT ABORT WHEN
 00024659 707011 SYMBIONTS USING PFA INSTEAD OF PER (EVEN W/ PATCH #23670 INCLUDED).
 00024669 707017 WHEN COPYING A RANDOM FILE OVER ANOTHER, SMALLER RANDOM FILE
 00024675 707000 OUTPUT FROM A PSECT DIRECTIVE IS NOT ACCEPTED BY LINK.
 00024693 707001 CPV-C00 FILL GHOST OBJECTS TO ;QUIT! COMMAND, AND OTHERS AS
 00024730 707001 IF 3 GRANULES OF A TOP-LEVEL MULT LEVEL INDEX EXIST, MUL PLACES
 00024731 707010 WHY IS THE LOADER GIVING ME A SEVERITY OF 4

SIDR NO	PCN	1ST LINE OF ABSTRACT
00024734	707015	THE ERROR LOG ROUTINE DOES NOT CHECK THE CORRECT BIT TO SEE
00024746	707013	SINGLE USER ABORT (SC 7E) OCCURS WHEN ATTEMPTING TO USE PMD OR SNAP
00024763	707001	GAC DOES NOT KNOW HOW TO READ :USERS. IT IS APPARENTLY READING THE
00024772	707001	FIX LOOPS WHEN AN ATTEMPT IS MADE TO CHECK OR FIX A FILE WHOSE FIT
00024790	707015	ERRFILE IS RECEIVING SEVERAL COPY ERRORS SUB-TYPE 6 FOLLOWING
00024791	707015	SECONDARY RECORDS CONTAINING SENSE DATA FOR THE NS TAPE DRIVES ARE
00024793	707015	ERROR LOG 4ERRFILES IS NOT CAPTURING ANY RECOVERIES 4TYPE 18
00024795	707000	PASS 2 SHOULD GENERATE A DEF FOR MINICUC,
00024808	707015	MODEL 3345 SIO FAILURE ENTRIES IN THE ERROR LOG ARE IN ERROR IN ALL
00024809	707015	SIO FAILURES ARE BEING REPORTED TO THE ERROR LOG FOR MODEL 3465
00025036	707015	THE ATTACHED ERROR LOG LISTING SPECIFIES IN THE SYSTEM ID THAT
00025038	707015	ANLZ TRANSLATE INCORRECTLY HEX VALUE TO EBCDIC,
00025049	707018	SHOW DOESN'T PRINT ANYTHING ONLINE WHEN MILE IS ASSIGNED TO LP.
00025056	707010	LOAD LOOPS ON AN OVERLAY PROGRAM WHEN 4MAP, VALUE, NAMES IS
00025059	707005	UNABLE TO PRINT ANALYZE DUMP ON LP. ABORTS WITH MESSAGE ICANT GET
00025060	707002	RANDOM FILES DO NOT APPEAR TO BE ALLOCATED BY DEFAULT ON CYLINDER
00025062	707000	COO TSIO CALLS NEWQ WITH R15 JUST USED AS LINK AT D0*IQ, ERR LOG
00025073	707000	RETRY ATTEMPTS ARE NOT HANDLED PROPERLY FOR RAD DEVICES, SIDR #21774
00025083	707010	LOADER LOOPS BUILDING OVERLAD LM IF 1) LIB LM CONSISTS OF DSECT
00025103	707002	TAPE DRIVE HANG UP ON CPV*COO WITH CPU ACTIVE --DUMP AND CONSOLE
00025109	707010	LOADER TRAPS WHILE PRODUCING A MAP IF (MAP,VALUE) IS SPECIFIED
00025113	707016	TEL-SCAN BYPASSED WHEN LMN IS PCL, ASSIGNMENT OF M:SI FOR PCL
00025114	707017	PCL IS NOT COMPATIBLE WITH OTHER CP-V PROCESSORS REGARDING INTER-
00025115	707017	LISTING AN UNLABEL TAPE WITH LIST F.T#JWL IN BATCH AN ERROR 4400
00025118	707013	WHEN ATTEMPTING TO LOG ON TO CP-V WHERE AN ERROR IN THE NUMBER
00025137	707018	SHOW DOESN'T MAP ONTO MONITOR PAGES CORRECTLY, THE FIX IS:
00025150	707005	1. FIX DOES NOT RECOGNIZE THE LIST COMMAND,
00025163	707006	SK 7E*40 AND SK 24*00 BOTH APPARENTLY HAVE SAME CAUSE,
00025167	707000	THE LIST COMMAND IN THE EASY COMMAND PROCESSOR CANNOT BE INTERRUPTED
00025177	707014	SWAPPER DEVICE TIMEOUTS ARE LOGGED ON EVERY P0 BOOT, NO INDICATION
00025213	707003	GCSP CAN GO NEGATIVE THUS CAUSING MBS TO START A JOB
00025227	707010	WHEN DEBUG OVERLAY CHECKS USER DCB TABLE FOR M:DB, IT DOES
00025228	707007	ACCORDING TO OPERATIONS REF MANUAL, THE SYSTEM RESPONSE TO DISPLAY

SIDR NO	PCN	1ST LINE OF ABSTRACT
00025280	707000	UPON BOOTING SYSTEM FROM TAPE, THE OPERATOR INQUIRY DO YOU WANT
00025289	707017	COPY CLEVERLY DELETES A PRE-EXISTING FILE IF FROM AND TO FILES
00025293	707016	BATCH WITH CONTINUATION CARDS DOES NOT WORK FROM BATCH, IT GETS
00025319	707000	WHEN BYTE DISPLACEMENT (BTD) OF 1 IS SPECIFIED ON AN OPEN OF A
00025320	707002	THERE WERE TWO ERRORS IN THE HDR2 OF ANSTAPE LABELS. THE TAPE WAS
00025324	707019	ATTEMPT TO OPEN QUEUE WITH P,4 CAUSES TPG TO GO TO XCON, X COMMAND
00025349	707017	TEL SHOULD SCAN THE PCL COMMAND IN THE SAME WAY HE SCANS THE OTHER
00025352	707010	LM BUILT WITH SL=0 EVEN THOUGH IT HAS UNSATISFIED PREFS TO JIT
00025354	707009	BACKSLASH DOES NOT GET REQUESTED PAGE IF PREVIOUS COMMAND WAS ALSO
00025358	707017	CP-V-COO GAC DOES NOT HAVE THE CAPACITY TO OPERATE ON A SPECIFIC
00025405	707012	WHE SUPER ENCOUNTERS A BAD OPTION, IT FLAGS IT UNRECOGNIZED
00025450	707008	THE DEF PROCESSOR ABORTS WITH THE FOLLOWING MESSAGE
00025486	707010	LOAD DOESN'T HANDLE UNEQUAL DSECT AREAS PROPERLY.
00025487	707008	1:SPRCSI CARD WITH IFORT1 AND IMETASYM1 SPECIFIED CAUSES DEF
00025495	707002	ERR9R 20=03 TRYING TO OPEN A FILE ON A PRIVATE PACK PREMOUNTED
00025509	707008	BATCH JOBS SUBMITTED FROM TERMINALS WERE NEVER STARTED. BATCH JOBS

4.0 RELEASE CONTENTS

The C01 release elements consist of:

- 707000-26/46/66 -- Two FSAVE tapes containing accounts:
 - ✓ :C01CI - compressed source files for new modules.
 - ✓ :C01SI - symbolic updates from both C00 and C01 to be used for assembling with :C00CI and :C01CI.
 - ✓ :C01B0 - binary output from assemblies of all the modules of the CP-V system and all processor and control files needed to perform a C01 sysgen.
 - ✓ X - non-supported utility programs.
 - ✓ :C01LO - listings of RTPROC and CYCUSR as well as the EXTRACT program and its data base.

The C01 FSAVE tapes are INSN 13A0 and 13B0, account :SYS.

13A0	:C01B0,	:C01SI,X
13B0	:C01LO,	:C01CI

- 707000-56 -- Listing tapes - compressed output from UTILIST consisting of assembly listings of all the modules in the CP-V system. There are three independent reels (i.e., not multi. vol. set). Files ACCT to FIN on reel C1L0; FIXARG to RBSSS on C1L1, and RCVCTL to 7446IO on C1L2. All were generated in account :C01LO.
- 707000-59 -- 42 x Microfiche - consisting of the listings of all of the modules of CP-V as well as technical documentation. Modules RTPROC and CYCUSR were modified after the microfiche was created; for these listings, use the -56 element or reassemble from CI and SI.
- 707000-91 -- Reference Manual updates to be applied after the C01 update packages are merged.

- 707000-61 -- This document which describes the C01 release content, the sysgen procedures, and lists the SIDs closed. This document supplements the -11C00 except for the paragraph 5 which describes sysgen procedures and supercedes the -11C00.
- Manual update packets for all of the reference manuals and the Data Base Tech Manual (see paragraph 1.4).

Content of the 707000-26/46/66 release tape:

- :C01C1 - Three major elements of CP-V have been restructured and, therefore, have been compressed and thus replace the compressed files from C00.
 - ANLZ - consists of root ANALZ and five overlay segments, ANALZ01-05.
 - TEL - consists of five modules, TELMN, SETAMR, TERR, SAVGET, and SCRAM.
 - TIC - consists of: TICROOT, GETMAIN, TICDCBS, TICINIT, TICKEYIN and TICLABOR.

A few more changes include:

- MREF is a null module which replaces GPHGP.
- SCRAM is a new module for logon password scrambling.
- The C00 compressed base of JIT is also included to facilitate reassembly if password scrambling is desired.
- HANDLERS was renamed BASHANDL so that the compressed file appears as BASHANDL.
- Several modules produce different ROMs as a function of assembly switches. In C01, those

switches are set in the compressed file so that several compressed files can be assembled with the same source file to produce the ROMs of the same name as the compressed.

<u>CI</u>		<u>SI</u>
TPCSIM	}	TPC
TPC		
GENMDO	}	GENMD
GENMDG		
COC	}	COC
MINICOC		
TPCOC		
SYSMAKO	}	SYSMAK
SYSMAK1		

- :C01SI - The C00 source files were used as the base for C01 and so :C01SI contains the total source updates needed to assemble with :C00CI and :C01CI to create the system.
- :C01B0 - All of the system binary files are included in :C01B0. In addition, the C01 processors needed to perform a sysgen (sysgen, loader, LOCCT processor, etc.) are included as well as the control files used in El Segundo to perform the C01 sysgens. The processor names begin with \$\$ and the control files begin with \$.
- :C01L0 - UTILIST compressed listings for RTPROC and CYCUSR are included here because the listings on the Microfiche are not accurate. Also, EXTRACT and its data base are here (see Appendix A).
- X - Account X contains utility programs which have been submitted by various people. Since they are non-supported programs, the source files are included so that installations may use and/or modify the programs.

Files of note are:

JOB, JOBMNSTK, JOBFORT - JCL to assemble/compile and load the programs in X. JOB includes all programs, JOBMNSTK includes only those which load with MONSTK and, JOBFORT includes all those written in Fortran for use when a new fortran library is installed. (Note: an error exists in JOBMNSTK. The job to assemble CALMON should include the ND on the METASYM command.)

- INFO - The info program supplies on-line descriptions of various CP-V on-line commands.
- HELP - provides descriptions of the utilities in account X. COPY HELP.X TO LP.
- EXJOBINFO - describes a package of hardware exercisers which are being used quite successfully by Field Engineering personnel.
- ALISTFILE - contains the system module names by source/compressed, ROMs, and load module.

5.0 SYSGEN CONSIDERATIONS

The purpose of this section is to describe some C01 special features which should be considered before performing a sysgen as well as describing how to do a C01 sysgen.

CP-V C01 may be generated under any currently supported CP-V system. One restriction is that the current running system must have at least 30K of core available for loading the target mini monitor. If a 64K system does not have enough core available, the C00 starter system must be used as the host for doing the sysgen. All of the C01 processors required to do a sysgen are contained in the :C01B0 account and should be executed from there. In that way it is immaterial what processors exist in :SYS of the host system.

A new feature has been added to sysgen to allow an installation to include a special handler in the monitor root even when all other handlers are in the unmapped overlay (see update to System Management Reference Manual for details).

Very few processors now default to be shared processors (see page 138 of the System Management Reference Manual, 90 16 74G-1). Those processors which are heavily used by an installation should be added to PASS2's :SPROCS command.

All of the control files needed to perform a sysgen are included in the :C01B0 account with names beginning with one \$. Files beginning with two \$'s are load modules used during the sysgen process. A PCL range copy may be used to obtain listings of the control files - COPYALL.:C01B0/\$B,\$9 TO LP(K).

The control files in :C01B0 are:

\$CPYSTD - is the standard file used in GENJOB1 to copy processors into the sysgen account. Note that the processors are expected to be in account CPVPROC. Modify this file to match your installation's processor list. The processors are not included on the C01 tape and on the C00 tape, they are in account 3531SYS.

\$C01**7T - is the PASS2 control file used for the 7T in E1 Segundo. It is a 7212 swapper system with IRBT, TP, real-time, 119 users, and very few shared processors.

\$CO1BASIC - is an example of one or more of almost everything.

\$CO1MINI - is a mini system for use on small core machines.
It's a 7270 swapper with 16 T/S lines.

\$CO1NOCOC - is a COC-less system, 7232 swapper, 7270 packs.

\$CO1PSWP - is a big Sigma 9, 7270 pack swapper.

\$CO1X560 - is a big 560 with NS RAD swapper.

\$DEFJOB - writes two PO tapes and BATCHes XREF.X.

\$GENJOB1)
\$GENJOB2) perform PASS3 for total system.
\$GENJOB3)

\$LOCCTS - creates the LOCCT files needed by PASS3 for the total system.

The password scrambler module, SCRAM, is loaded with TEL, SUPER, and LOGON and it references a SEED value in the JIT. The released version (:CO1B0, :CO1SI) of JIT has a value of zero for the SEED so that no password scrambling will be in effect. If you want to use the scrambler, set SEED to some random pattern of bits in bits 1-31 (not bit 0). (On the Sigma 7T, SEED is X'5CF301DA'.) Reassemble JIT with the SEED value prior to doing the sysgen so that the proper value will be loaded with TEL, SUPER, and LOGON. On a new system with scrambling in effect, all the account passwords contained in the :USERS file must be scrambled. If input for SUPER is available, recreate :USERS after the system is booted. If only a :USERS file exists with no backup as input to SUPER, run the load module USERS from account X in a CO privileged account or in :SYS. Assign M:SO to the card punch or a file. The output to M:SO is in format of input to SUPER. It does not include all features which might be in the :USERS file and therefore should not be used to create a :USERS file. Instead, EDIT it to M (modify) instead of C (create) all accounts and then input it to SUPER to scramble all passwords.

5.1 How To Sysgen CP-V C01

- Step 1: Use a current CP-V system or boot a C00 starter system with keyins 'IPFT'.
- Step 2: Using SUPER, authorize account :COLSGEN as shown in example 1.
- Step 3: Using FRES (B00 or later), restore :C01B0. One of the control files runs XREF from account X so you may also wish to restore XREF and XREFJOB to account X. If you wish password scrambling, also restore JIT to accounts :COLSI and :COLCI. If your FRES is older than B00, PCL can be used to restore :C01B0.
- Step 4: In account :COLSGEN, !BATCH \$LOCCTS.:C01B0
This job will create all the needed LOCCTS in account :COLSGEN.
- Step 5: In account :COLSGEN, copy the control file from :C01B0 which most closely matches your installation. Use EDIT to modify the file to match the installation. Either batch the job or run it on-line. Verify the results.
- Step 6: After the LOCCTS have been created and the PASS2 is run, EDIT the standard file (\$CPYSTD) to supply the needed processors from the proper accounts. Create any additional processors if needed for the target system.
- Step 7: If the installation desires the patch deck be included on the PO tape, restore the patch file to :C01B0 and EDIT the file \$DEFJOB to include the ASSIGN command at lines 3.5 and 14.5:
- ```
!ASSIGN M:PATCH,(FILE,file,:C01B0)
```



**Step 8:**

In account :CO1SGEN, BATCH \$GENJOB1.:CO1BO.  
Each GENJOB will terminate by BATCHing a  
subsequent GENJOB until finally \$DEFJOB  
is batched to write two PO tapes and run  
XREF. Verify all the genjob output.

The following error/warning messages may be  
expected in the PASS2 jobs:

NO:COC COMMAND - A batch only system being  
generated.

WARNING: BUFFERS < 3\* LINES

PSPACE SIZE > S:CYLSZ -- S:CYLSZ USED

The action taken by PASS2 in each of these  
cases is correct; the messages are for  
information purposes only.

The load map for PPS will contain PREFs  
(CRESDF, DYNRESDF, MDYNRESDF, PP:UPPC,  
PP:UPPH, PP:UPPT, PPTABLE, PPTABLSZ, RESDF,  
RESDFP) if the target system does not  
include real time. As this processor is  
strictly a real time utility, it may be  
deleted from non-real time systems.

The load map for RBBAT will contain PREFs  
(RB:FLAG, RBB:HFE, RBB:HIN, RBB:HOU) if  
the target system does not include remote  
processing. These PREFs may be ignored in  
that case.

The load map for FIX on a batch only system  
will have a PREF for MODE, which may be  
ignored.

## 5.2 How To Do A Sysgen With No COC

EDIT may be run as a ghost job from OC. All steps are the same as 5.1 except as noted.

Step 1: If the C00 starter tape is used, add a reconfiguration card to partition out the COC (i.e., :REMOVE A05).

Steps 2-4: Same.

Step 5: Select the PASS2 control job \$C01NOCOC and modify it to match the installation desired. Note that the file \$C01NOCOC contains a modified LOCCT for M:MON, the CP-V monitor. This must be run after \$LOCCTS has finished.

Steps 6-7: Same.

Step 8: Use GJOB/EDIT to insert a full name and account and priority into the various job cards which are contained in the genjobs in :C01B0 (\$GENJOB1, \$GENJOB2, \$GENJOB3, \$DEFJOB). Then use GJOB BATCH to submit \$GENJOB1; this job will batch the rest.

EXAMPLE 1 - SUPER SETUP FOR SYSGEN

Log on to :SYS,LBE or submit batch job.

```
!SUPER
-M :SYS,LBE
--B$PR = 80; O$PR = 80
--OMCO = 64; BMCO =64
--BM9T = 1; OM9T = 1
--BMPDISC = 32000; OMPDISK = 32000
--BMTSTORE = 32000; OMTSTORE = 32000
--BMPSTORE = 32000; OMPSTORE = 32000
-- (CR)
-C :CO1SGEN,CPV
--B$PR = 80; O$PR = 80
--BMCO = 64; OMCO = 64
--BM9T = 1; OM9T = 1
--BMPDISC = 32000; OMPDISC = 32000
--BMTSTORE = 32000; OMTSTORE = 32000
--BMTIME = 999; OMTIME = 999
--BMLO = 9999; OMLO = 9999
-- (CR)
-E
!OFF
```

## 6.0 MAINTENANCE PROCEDURES

Maintenance procedures continue to be the same as C00. The patch files on the Sigma 7F in El Segundo and on the Software Support tape are COLPATCH and CHRONO-C01.

Patches for the TIC will be made via GENMDs to file TIC assumed to reside in account :SYS. GENMDs to the TIC will be released in the same manner that patches are released to other system processors.

Should an installation desire to build its own version of the TIC using the released ROMs together with installation-supplied ones, such a TIC should be loaded prior to doing a SYSGEN so that it will be written on the PO tape. If the installation's TIC is given another name, the GENMD command identifying TIC as the file to be patched will have to be changed to refer to the new file name. No changes will be required to the GENMD patches which follow the GENMD command. File name can consist of NAME.ACCOUNT.PASSWORD.

APPENDIX AEXTRACT

EXTRACT is a processor designed to produce tech-manual-type documentation and reports using specially formatted comments imbedded in the assembly listings. These special comments are all comment lines with a code letter in column two and asterisks in columns one and three as well as all REFs, DEFs and SREFs that have a non-blank comment field. A \*,\* is used for continuation.

The codes are:

- \*M\* a one line description of each module.
- \*P\* a paragraph or two describing in brief the purpose of a module and giving an overview of its operation.
- \*F\* a brief description of each major function within a module.
- \*D\* a detailed description of a routine in terms of such things as register usage, input, output, interfaces, etc.
- \*E\* a description of an error condition at the point where it is detected.
- \*S\* a description of a Screech Code at the point it is called.
- \*O\* an explanation of some communication with the operator at the point where it is sent.
- \*C\* a description of what has changed for this version of the operating system.
- \*K\* a description of some concept of term that is useful in understanding the operation of a module.
- \*X\* X type comments are all REFs, DEFs and SREFs.

EXTRACT performs two major tasks; first, it calls all of the special comments from UTILIST compressed files of the assembly listings to form a data base, then it produces reports on the desired modules and codes from this data base.

EXTRACT commands have the form:

COMMAND (OPTION), (OPTION)...

The command may be continued at any point except within a word by ending the command with a semi-colon(;). Anything after the semi-colon will be ignored. The commands may be abbreviated to two letters and are:

|                |                                                                                                                                                                                                                                                                                        |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>EXTRACT</u> | create data base from UTILIST compressed files. The legal options are CODES, MODULES, DATA and SOURCE (see option descriptions to follow).                                                                                                                                             |
| <u>REPORT</u>  | generate a report from the data base. The legal options are DATA, CODES, MODULES, SORT, ORDER, HEADING, LINES and FORMAT.                                                                                                                                                              |
| <u>DELETE</u>  | remove specified comments from data base. The smallest unit that can be deleted is all of one type from one module. The legal options are DATA, CODES and MODULES.                                                                                                                     |
| <u>ADD</u>     | add specified comments to an already existing data base. Due to the structure of the data base, it may be more efficient to EXTRACT the comments to be added into a second data base and use PCL to concatenate the two files. The legal options are DATA, CODES, MODULES, and SOURCE. |

The options are as follows:

- (DATA,name,account,password) - specifies the name of the data base. The running account is the default.
- (CODES,code letter[,code letter]...) or (CODES,GLOSSARY) or (CODES,ALL) specifies which types of special comments are selected for this command. The legal code letters are M,P,F,D,E,S,C,K,O,K. GLOSSARY is used only in selecting codes for the report command and causes all DEFs, Ms and Ks to be reported. ALL is the default.

- (MODULES,name or range[,name or range]...) or (MODULES,EXDATA) or (MODULES,ALL) - specifies which modules are selected for this command. A maximum of ten names or ranges may be specified where a name is simply the name of a module and a range is two module names separated by a dash (-), e.g., FILE1-FILE4. EXDATA implies that a file EXDATA exists in the running account and it contains a list of the modules to be used. ALL is the default.
  - (SOURCE,account) or (SOURCE,LT#xxxx,account) - gives the labeled tape serial number and account or simply the account of the UTILIST compressed LO files to be searched for comments.
  - (SORT,sort parameter[,sort parameter]...) - specifies the order for the selected comments to be reported. The four legal sort parameters are:
    - 3 CODE - special comment type
    - 4 MODULE - module name
    - LINE# - line number within the module
    - 2 NAME - name of the module, routine, screech code or other item being described by the comments.
- The first parameter given is the primary sort key, the second one given is secondary, etc. SORT is required for all report commands.
- (ORDER,code letter[,code letter]) - specifies the order in which the requested codes are to be sorted. The default is alphabetical (C,D,E,F,K,M,O,P,S,X) and any codes specified in the CODES option but not in the ORDER option will be ordered alphabetically after all those specified.
  - (HEADING,text1,sort parameter,text2) - gives a heading to appear at the top of each page of output. Text1 is a 1-8 character field that appears at the far left of the heading. The first four characters of the current value of the sort parameter that is requested will appear in columns 10-13 of the heading. Text 2 is a 1-80 character field that begins in column 15 and makes up the main body of the heading.
  - (LINES,xxx) - specifies the number of lines per page in the report.
  - (FORMAT,sort parameter[,sort parameter]...) - specifies that a top of form is to be issued when the value of the specified sort parameter changes.

EXAMPLES

To create a data base file named DATA..SAFE containing all the comments from all the files in the running account:

```
>EX (DATA,DATA,,SAFE)
```

To create a data base DATA containing selected codes and modules from UTILIST compressed files on labeled tape #LIST:

```
>EX (DATA,DATA),(CODES,M,P,X),(MODULES,;
>FILE1,FILE3-FILE7),(SOURCE,LT#LIST)
```

To produce a report from a data base DATA on modules listed in the file EXDATA in the running account. The report is to contain codes M,P,F,D in that order and sorted so that the report is ordered by the names of the items described:

```
>RE (DATA,DATA),(CODES,D,M,P,F),(ORDER,M,P,F,D),;
>(MODULES,EXDATA),(SORT,NAME,CODE),(HEADING,;
>REPORT1,NAME, THIS IS REPORT ONE)
```

To produce a glossary from all the modules in the data base DATA sorted by code Ms first then Ks and DEFs, and ordered by module within each code and by name within each module. The report is to have 50 lines per page and each code group should start at the top of a new page.

```
>RE (DATA,DATA),(CODES,GLOSSARY),(SORT,CODE,;
>MODULE,NAME),(ORDER,M,K,X),(LINES,50),(FORMAT,CODE)
```

To delete the P commands of module FILE1 from data base DATA:

```
>DE (DATA,DATA),(CODES,P),(MODULES,FILE1)
```

To add the F and D comments from a range of files in account :LIST to data base DATA:

```
>AD (DATA,DATA),(CODES,F,D),(MODULES,FILE2-FILE9);
>,(SOURCE,:LIST)
```



Release tape reports

On the release tape - 707000-26/46/66, account :CO1LO contains:

- EXTRACT - the documentation program load module.
- EXTRACTCI - the compressed METASYM source file for EXTRACT.
- \$DB - the complete CO1 data base for EXTRACT as taken from the UTILIST LO files.

A series of control files which can be copied over EXDATA in order to extract special reports of interest. These reports are included on the CO1 microfiche but not on the listing tapes or in the :CO1LO account.

- \$CCI - all CCI modules M,P,F,D
- \$CENTSYS - central system modules
- \$DEBUG - debug modules
- \$DISKFM - file management modules (not tape)
- \$FILEMAINT - FILL, FSAVE, FRES
- \$HANDLER - handler modules except MTAP
- \$INITREC - initialization and recovery
- \$LOADER - loader
- \$PCL - PCL
- \$REMOTE - remote processing
- \$SYMCOOP - symbionts and cooperative modules
- \$TAPEFM - tape file management

We are interested in your comments and suggestions.

15A4

:CMB0

| ORG | GRAN | REC | DATE | NAME       |
|-----|------|-----|------|------------|
| C   |      | 1   |      | DAT        |
| X   |      | 7   |      | \$\$DEF    |
| X   |      | 7   |      | \$\$DEFCEM |
| X   |      | 52  |      | \$\$LOADER |
| X   |      | 13  |      | \$\$LOCCT  |
| X   |      | 66  |      | \$\$PASS2  |
| X   |      | 7   |      | \$\$PASS3  |
| X   |      | 7   |      | \$\$SYMCEN |
| C   |      | 6   |      | \$:STDDEF  |
| X   |      | 104 |      | \$CPYSTD   |
| X   |      | 297 |      | \$CO1**7T  |
| X   |      | 347 |      | \$CO1BASIC |
| X   |      | 215 |      | \$CO1MINI  |
| X   |      | 480 |      | \$CO1NOCOC |
| X   |      | 326 |      | \$CO1PSWP  |
| X   |      | 290 |      | \$CO1X560  |
| X   |      | 23  |      | \$DEFJOB   |
| X   |      | 30  |      | \$GENJOB1  |
| X   |      | 47  |      | \$GENJOB2  |
| X   |      | 64  |      | \$GENJOB3  |
| X   |      | 814 |      | \$LOCCTS   |
| C   |      | 6   |      | ACCT       |
| C   |      | 124 |      | ACCTSUM    |
| C   |      | 7   |      | ADD        |
| C   |      | 31  |      | ALLL       |
| C   |      | 35  |      | ALLYCAT    |
| C   |      | 1   |      | ALLYTL     |
| C   |      | 60  |      | ALTCP      |
| C   |      | 294 |      | ANALZ      |
| C   |      | 169 |      | ANALZ01    |
| C   |      | 149 |      | ANALZ02    |
| C   |      | 92  |      | ANALZ03    |
| C   |      | 160 |      | ANALZ04    |
| C   |      | 206 |      | ANALZ05    |
| C   |      | 22  |      | ANSL       |
| C   |      | 33  |      | ARDL       |
| C   |      | 76  |      | ASSGR      |
| C   |      | 133 |      | BACKUP     |
| C   |      | 126 |      | BACKUPA    |
| C   |      | 43  |      | BASHANDL   |
| C   |      | 1   |      | BASHANDL2  |
| C   |      | 42  |      | BATCH1     |
| C   |      | 69  |      | BATCH2     |
| C   |      | 13  |      | BIT0TM     |
| C   |      | 84  |      | BLDC0      |
| C   |      | 111 |      | BOOTSUBR   |
| C   |      | 238 |      | BPM        |
| C   |      | 44  |      | BSCIO      |
| C   |      | 4   |      | BUFF       |
| C   |      | 20  |      | CALPR0C    |
| C   |      | 62  |      | CCIR       |
| C   |      | 30  |      | CCITABLS   |
| C   |      | 16  |      | CCIO       |
| C   |      | 20  |      | CFUR       |
| C   |      | 17  |      | CHARR0UT   |
| C   |      | 4   |      | CJ         |
| C   |      | 3   |      | CJENDA     |
| C   |      | 18  |      | CL0CK4     |
| C   |      | 1   |      | CL0SE      |
| C   |      | 128 |      | CLS        |
| C   |      | 22  |      | CLSTR      |
| C   |      | 23  |      | CNMPR0C    |
| C   |      | 146 |      | C0C        |
| C   |      | 6   |      | C0CD       |
| C   |      | 14  |      | C0MBAT     |
| C   |      | 7   |      | C0MBINE    |
| C   |      | 195 |      | C0NMAIN    |

1001 B0

|   |     |          |
|---|-----|----------|
| C | 68  | CONSUB   |
| C | 49  | C00P     |
| C | 49  | C0PYALL  |
| C | 13  | C0PYT0   |
| C | 38  | C0PYTRAN |
| C | 6   | CR00T    |
| C | 2   | CR00TTL  |
| C | 21  | CSEC0M   |
| C | 35  | CSEHAND  |
| C | 7   | CSES7    |
| C | 5   | CSES9    |
| C | 15  | CSEX560  |
| C | 118 | CYC00R   |
| C | 331 | DATAD0F  |
| C | 1   | DEB00    |
| C | 45  | DEB00R   |
| C | 87  | DEF      |
| C | 13  | DEF00M   |
| C | 10  | DELPR1   |
| C | 224 | DELTA    |
| C | 62  | DELUTL   |
| C | 176 | DEV0MP   |
| C | 9   | DEVTRAN  |
| C | 14  | DFDC0S   |
| C | 58  | DIAG     |
| C | 44  | DISPLA0  |
| C | 55  | DLT      |
| C | 47  | DPSI0    |
| C | 152 | DRSP     |
| C | 46  | DSCI0    |
| C | 35  | DUMP     |
| C | 6   | EAPL     |
| C | 4   | ECBBLK   |
| C | 18  | ECBCHECK |
| C | 5   | ECBINIT  |
| C | 1   | ECB0V    |
| C | 16  | ECB0ST   |
| C | 211 | EDIT     |
| C | 239 | ELLACSL  |
| C | 20  | ELLADSP  |
| C | 196 | ELLAR00T |
| C | 55  | ELLASUM  |
| C | 24  | ELLATMD  |
| C | 57  | EN00     |
| C | 1   | EN00V    |
| C | 36  | ENQUE    |
| C | 16  | ENTRY    |
| C | 13  | ERH0DLR  |
| C | 40  | ERRIFIL  |
| C | 5   | ERRMSGE  |
| C | 12  | ERRMWR   |
| C | 5   | ERR0R    |
| C | 683 | ERRTEXT  |
| C | 6   | ESTD     |
| C | 115 | EVL      |
| C | 3   | FAUTH    |
| C | 4   | FBCD     |
| C | 103 | FILL     |
| C | 107 | FILLA    |
| C | 23  | FILL0CB  |
| C | 25  | FILL0CBA |
| C | 5   | FILTRAN  |
| C | 117 | FIN      |
| C | 4   | FIXARG   |
| C | 272 | FIX0P    |
| C | 131 | FIX0B    |
| C | 243 | FIX1     |
| C | 122 | FRES     |







:C0130

|   |     |          |
|---|-----|----------|
| C | 17  | TCATCH   |
| C | 27  | TELLUSR  |
| C | 171 | TELMN    |
| C | 11  | TELSCOPE |
| C | 10  | TERR     |
| C | 1   | TEXTARG  |
| C | 79  | TFDUTL   |
| C | 8   | TFILE    |
| C | 4   | THEUNCOC |
| C | 5   | TICDQBS  |
| C | 109 | TICINIT  |
| C | 43  | TICKEYIN |
| C | 224 | TICLABOR |
| C | 138 | TICPROCS |
| C | 106 | TICROOT  |
| C | 8   | TIM      |
| C | 3   | TOPROOT  |
| C | 148 | TP:TP0   |
| C | 139 | TPC      |
| C | 1   | TPCDMS   |
| C | 171 | TPCOC    |
| C | 151 | TPCSIM   |
| C | 164 | TPG      |
| C | 36  | TPG1     |
| C | 65  | TPPROCS  |
| C | 166 | TPQ1     |
| C | 78  | TPQ2     |
| C | 1   | TQ0V1    |
| C | 1   | TQ0V2    |
| C | 25  | TQROOT   |
| C | 8   | TRAPC    |
| C | 30  | TREER    |
| C | 28  | TSIO     |
| C | 72  | TSTHQP   |
| C | 31  | TYPR     |
| C | 267 | UBCHAN   |
| C | 56  | UCAL     |
| C | 1   | UMOV     |
| C | 17  | UTILITY  |
| C | 61  | UTMBPMBT |
| C | 173 | UTS      |
| C | 1   | VDCB     |
| C | 27  | V2IO     |
| C | 90  | WRT      |
| C | 43  | WRTD     |
| C | 109 | WRTF     |
| C | 173 | XDLT     |
| C | 23  | XLIMIT   |
| C | 88  | XMONITOR |
| C | 37  | XPART    |
| C | 39  | 2780IO   |
| C | 29  | 3270IO   |
| C | 4   | 7TAP     |
| C | 7   | 7446IO   |
| K | 42  | 99TEST   |

:C01CI

|   |      |          |
|---|------|----------|
| C | 520  | ANALZ04  |
| C | 791  | ANALZ05  |
| C | 238  | BASHANDL |
| C | 238  | BPM      |
| C | 1016 | COC      |
| C | 58   | DIAG     |
| C | 713  | FIXHQP   |
| C | 479  | FIXSUB   |
| C | 110  | JIT      |
| C | 342  | LP:TR0Q  |
| C | 1015 | MINICOC  |
| C | 1    | MREF     |
| C | 55   | OCQ      |

|       |      |      |            |
|-------|------|------|------------|
| C     | 97   |      | RTPROCS    |
| C     | 148  |      | SAVGET     |
| C     | 10   |      | SCRAM      |
| C     | 544  |      | SETAMR     |
| C     | 53   |      | SIG7FDP    |
| C     | 814  |      | TELMN      |
| C     | 77   |      | TERR       |
| C     | 485  |      | TICINIT    |
| C     | 269  |      | TICKEYIN   |
| C     | 1645 |      | TICLABOR   |
| C     | 138  |      | TICPROCS   |
| C     | 576  |      | TICR00T    |
| C     | 148  |      | TP:TP0     |
| C     | 1015 |      | TPC00      |
| C     | 65   |      | TPPROCS    |
| C     | 173  |      | UTS        |
| <hr/> |      |      |            |
| C     | 131  |      | \$:BPS     |
| C     | 72   |      | \$:BS      |
| C     | 15   |      | \$:STDMET  |
| X     | 9969 |      | \$901692   |
| X     | 167  |      | :BLIB      |
| X     | 71   |      | :DIC       |
| X     | 116  |      | :LIB       |
| X     | 3    |      | :MON\$TK   |
| C     | 45   |      | ADAMPROCS  |
| C     | 7    |      | ADMDSCT    |
| X     | 378  |      | ALISTFILE  |
| X     | 7    |      | ALLFILES   |
| C     | 33   |      | ALLFILESCI |
| X     | 7    |      | ANLZ       |
| X     | 7    |      | ANS        |
| READ  | =    | NONE |            |
| C     | 354  |      | ANSF0I     |
| C     | 16   |      | ANSMCI     |
| X     | 16   |      | APFUM      |
| C     | 7    |      | APTERYX    |
| C     | 73   |      | ASIG7      |
| X     | 137  |      | BOOK       |
| X     | 30   |      | BOOKHELP   |
| X     | 5    |      | CAG        |
| READ  | =    | NONE |            |
| X     | 7    |      | CALMON     |
| READ  | =    | NONE |            |
| C     | 135  |      | CALMON:C   |
| X     | 7    |      | CALMONE    |
| READ  | =    | NONE |            |
| C     | 187  |      | CALMONE:C  |
| X     | 5    |      | CARDLIST   |
| READ  | =    | NONE |            |
| X     | 5    |      | CBUG       |
| READ  | =    | NONE |            |
| X     | 5    |      | CD         |
| READ  | =    | NONE |            |
| X     | 7    |      | CHK        |
| C     | 24   |      | CHKCI      |
| X     | 7    |      | CHKX       |
| READ  | =    | NONE |            |
| C     | 85   |      | CMDSECT    |
| X     | 7    |      | CMPR       |
| READ  | =    | NONE |            |
| C     | 519  |      | C0BC0M     |
| X     | 5    |      | C0CSUM     |
| READ  | =    | NONE |            |
| X     | 7    |      | COMP       |
| X     | 7    |      | COMPARE    |
| C     | 13   |      | COMPARECI  |
| C     | 121  |      | COMP0I     |
| C     | 349  |      | CPVEXJOB   |

X



|       |   |       |           |
|-------|---|-------|-----------|
| K     |   | 39    | CO1INF0   |
| K     |   | 5     | DB        |
| READ  | = | NONE  |           |
| C     |   | 109   | DCPROCS   |
| C     |   | 46    | DCSUBS    |
| C     |   | 116   | DCSUBSCI  |
| K     |   | 5     | DD        |
| READ  | = | NONE  |           |
| K     |   | 7     | DEFCON    |
| C     |   | 30    | DEFCONCI  |
| K     |   | 7     | DEL       |
| C     |   | 35    | DELCI     |
| K     |   | 5     | DG        |
| READ  | = | NONE  |           |
| K     |   | 5     | DT        |
| READ  | = | NONE  |           |
| K     |   | 7     | DUCK      |
| C     |   | 74    | DUCKCI    |
| K     |   | 7     | EDIT      |
| READ  | = | NONE  |           |
| C     |   | 1036  | EDITCI    |
| K     |   | 8     | ELLAX     |
| C     |   | 218   | EXJOBINF0 |
| K     |   | 37    | FFHELP1   |
| WRITE | = | DPUBS |           |
| K     |   | 1882  | FFHELP2   |
| WRITE | = | DPUBS |           |
| K     |   | 797   | FFHELP3   |
| WRITE | = | DPUBS |           |
| K     |   | 711   | FFHELP4   |
| WRITE | = | DPUBS |           |
| K     |   | 194   | FFHELP5   |
| WRITE | = | DPUBS |           |
| K     |   | 136   | FFHELP6   |
| WRITE | = | DPUBS |           |
| K     |   | 7     | FILER     |
| READ  | = | NONE  |           |
| C     |   | 296   | FILERCI   |
| C     |   | 1     | FILERCI2  |
| X     |   | 15    | FUMJOB    |
| K     |   | 7     | GRAPH -   |
| READ  | = | NONE  |           |
| K     |   | 1922  | GRAPHSI - |
| C     |   | 423   | GRB0      |
| C     |   | 40    | GRPG      |
| X     |   | 330   | GRPGSI ,  |
| C     |   | 1159  | HELP      |
| X     |   | 1027  | I#901692  |
| K     |   | 7     | INF0      |
| READ  | = | NONE  |           |
| C     |   | 117   | INF0CI    |
| X     |   | 7     | INITVOL   |
| READ  | = | NONE  |           |
| C     |   | 23    | INITVOLCI |
| C     |   | 6     | J:FEXEC   |
| C     |   | 9     | J:F1EXEC  |
| C     |   | 11    | J:LLEXEC  |
| X     |   | 57    | JB        |
| X     |   | 7     | JCL       |
| X     |   | 17    | JCL1      |
| X     |   | 341   | J0B       |
| X     |   | 84    | J0BF0RT   |
| X     |   | 79    | J0BMNSTK  |
| X     |   | 6     | J1        |
| X     |   | 5     | KEY       |
| READ  | = | NONE  |           |
| K     |   | 7     | KEYER     |
| READ  | = | NONE  |           |

|      |   |      |             |
|------|---|------|-------------|
| C    |   | 24   | KEYER1SI    |
| C    |   | 62   | KEYER2SI    |
| K    |   | 5    | LIB         |
| READ | = | NONE |             |
| K    |   | 7    | LIST        |
| READ | = | NONE |             |
| C    |   | 46   | LISTCI      |
| K    |   | 441  | LISTFILE    |
| K    |   | 7    | LMCHK       |
| C    |   | 98   | LMCHKCI     |
| K    |   | 8    | LOAD        |
| C    |   | 159  | LOADCI      |
| C    |   | 26   | LOADDEVDMF  |
| K    |   | 7    | LCCCT       |
| C    |   | 197  | LCCCTCI     |
| K    |   | 7    | LOOK        |
| C    |   | 11   | LPBBQ0B0L   |
| C    |   | 401  | LPC0B       |
| C    |   | 117  | LPC0B0L     |
| C    |   | 87   | LPMETA      |
| K    |   | 5    | LS          |
| READ | = | NONE |             |
| K    |   | 7    | LSTD        |
| C    |   | 34   | LSTDCI      |
| K    |   | 5    | LUS         |
| READ | = | NONE |             |
| K    |   | 7    | MAP         |
| C    |   | 455  | MAPCI       |
| K    |   | 7    | METAFUM     |
| C    |   | 495  | METAFUMCI   |
| X    |   | 8    | MICLIST     |
| C    |   | 123  | MICLISTCI   |
| X    |   | 7    | MOVE        |
| X    |   | 5    | MP00L       |
| READ | = | NONE |             |
| K    |   | 7    | MRDS        |
| READ | = | NONE |             |
| K    |   | 7    | MTEMF       |
| C    |   | 60   | MTEMFCI     |
| C    |   | 250  | P:SYSTEM    |
| X    |   | 7    | PATCH       |
| C    |   | 51   | PATCHCI     |
| X    |   | 7    | PLUSCARD    |
| C    |   | 72   | PLUSCARDCI  |
| C    |   | 18   | PTAP00      |
| C    |   | 113  | PTAPCI      |
| C    |   | 3    | PTRP00      |
| C    |   | 9    | PTRPCI      |
| X    |   | 7    | RENEW       |
| X    |   | 7    | RENEWALL    |
| C    |   | 10   | RENEWALLCI  |
| C    |   | 2    | RENEWCI     |
| X    |   | 7    | RENEWSTD    |
| C    |   | 11   | RENEWSTD CI |
| X    |   | 7    | REW         |
| C    |   | 8    | REWCI       |
| X    |   | 7    | RTLOAD      |
| C    |   | 19   | RTLOADCI    |
| C    |   | 13   | S:ANLZ      |
| C    |   | 15   | S:ARG       |
| C    |   | 106  | S:CAG       |
| C    |   | 277  | S:CARDLIST  |
| C    |   | 39   | S:CBUG      |
| X    |   | 525  | S:CD        |
| C    |   | 605  | S:C00SUM    |
| C    |   | 268  | S:CVM       |
| C    |   | 22   | S:CVMD      |
| C    |   | 15   | S:DB        |

|   |      |        |            |
|---|------|--------|------------|
| C |      | 16     | S:DD       |
| C |      | 105    | S:DELTA    |
| C |      | 22     | S:DG       |
| C |      | 88     | S:DIGIT    |
| C |      | 8      | S:DT       |
| C |      | 267    | S:ERMSG    |
| C |      | 13     | S:F1       |
| C |      | 13     | S:F2       |
| C |      | 23     | S:GRAPH1   |
| C |      | 24     | S:GRAPH2   |
| C |      | 21     | S:GRAPH3   |
| C |      | 96     | S:INT      |
| C |      | 12     | S:JITWORD  |
| C |      | 345    | S:KEY      |
| C |      | 51     | S:LI       |
| C |      | 803    | S:LIB      |
| C |      | 45     | S:LS       |
| C |      | 16     | S:LUS      |
| C |      | 30     | S:MOVE     |
| C |      | 29     | S:MP00L    |
| C |      | 214    | S:MRDS     |
| C |      | 97     | S:MS       |
| C |      | 1417   | S:PISYSTEM |
| C |      | 99     | S:PRNTERR  |
| C |      | 265    | S:SC1      |
| C |      | 65     | S:SIDR     |
| C |      | 26     | S:SNAP     |
| X |      | 428    | S:SQ       |
| C |      | 10     | S:SUA      |
| C |      | 109    | S:TIME     |
| C |      | 11     | S:TT       |
| C |      | 16     | S:TTV      |
| C |      | 5      | S:UT       |
| C |      | 35     | S:WAIT     |
| C |      | 8      | S:WFL      |
| C |      | 6      | S:WFT      |
| C |      | 275    | S:XOPEN    |
| C |      | 282    | SCOMPARE   |
| X |      | 7      | SGT        |
| C |      | 216    | SGTCI      |
| X |      | 7      | SIDR       |
| C |      | 195    | SKDI0      |
| C |      | 191    | SKDI0CI    |
| X |      | 5      | SNAP       |
|   | READ | = NONE |            |
| X |      | 7      | SN00P      |
|   | READ | = NONE |            |
| C |      | 497    | SN00PCI    |
| X |      | 7      | SPY        |
|   | READ | = NONE |            |
| C |      | 92     | SPYCI      |
| X |      | 5      | SQ         |
|   | READ | = NONE |            |
| X |      | 5      | SUA        |
|   | READ | = NONE |            |
| X |      | 29     | T\$901692  |
| X |      | 7      | TCOPY      |
| C |      | 279    | TCOPYCI    |
| C |      | 4      | TCT        |
| C |      | 5      | TCTCI      |
| X |      | 7      | TPJSCAN    |
| C |      | 9      | TPJSCANSI  |
| C |      | 461    | TPJSCAN2SI |
| X |      | 7      | TRACK      |
|   | READ | = NONE |            |
| C |      | 138    | TRACKCI    |
| X |      | 7      | TT         |
| X |      | 7      | TTV        |

X

|      |   |      |
|------|---|------|
| C    |   | 17   |
| X    |   | 7    |
| READ | = | NONE |
| C    |   | 270  |
| C    |   | 108  |
| X    |   | 7    |
| X    |   | 5    |
| READ | = | NONE |
| K    |   | 8    |
| C    |   | 109  |
| X    |   | 5    |
| READ | = | NONE |
| K    |   | 5    |
| READ | = | NONE |
| X    |   | 7    |
| C    |   | 323  |
| X    |   | 375  |
| X    |   | 2    |

•• 654 FILES LISTED

U:M0NSTK  
UPDATE  
UPDATE1SI  
UPDATE2SI  
USERS  
UT  
UTILIST  
UTILISTCI  
WFL  
WFT  
XREF  
XREFCI  
XREFJOB  
XREFJOB1

x

1300

:C01 L0

| ORG | GRAN  | REC  | DATE | NAME        |
|-----|-------|------|------|-------------|
| C   |       | 1    |      | DAT         |
| X   |       | 17   |      | \$CCI       |
| X   |       | 20   |      | \$CENTSYS   |
| X   | 50161 |      |      | \$DB        |
| X   |       | 4    |      | \$DEBUG     |
| X   |       | 11   |      | \$DISKFM    |
| X   |       | 9    |      | \$FILEMAINT |
| X   |       | 32   |      | \$HANDLER   |
| X   |       | 23   |      | \$INITREC   |
| X   |       | 11   |      | \$LOADER    |
| X   |       | 19   |      | \$PCL       |
| X   |       | 8    |      | \$REMOTE    |
| X   |       | 19   |      | \$SYMC00P   |
| X   |       | 13   |      | \$TAPEFM    |
| C   |       | 3856 |      | CYCUBR      |
| X   |       | 9    |      | EXTRACT     |
| C   |       | 390  |      | EXTRACTCI   |
| C   |       | 1074 |      | RTPROCS     |

:C01 SE

|   |      |      |  |          |
|---|------|------|--|----------|
| X |      | 3    |  | ACCT     |
| X |      | 283  |  | ACCTSUM  |
| X |      | 145  |  | ADD      |
| X |      | 137  |  | ALLL     |
| X |      | 214  |  | ALLYCAT  |
| X |      | 14   |  | ALLYTL   |
| X |      | 484  |  | ALTOP    |
| X |      | 2921 |  | ANALZ    |
| X |      | 2814 |  | ANALZ01  |
| X |      | 2633 |  | ANALZ02  |
| X |      | 510  |  | ANALZ03  |
| X |      | 649  |  | ANALZ04  |
| X |      | 656  |  | ANALZ05  |
| X |      | 235  |  | ANSL     |
| X |      | 318  |  | ARDL     |
| X |      | 301  |  | ASSGR    |
| X | 1004 |      |  | BACKUP   |
| X |      | 155  |  | BASHANDL |
| X |      | 31   |  | BATCH1   |
| X |      | 30   |  | BATCH2   |
| X |      | 151  |  | BITOTM   |
| X |      | 55   |  | BLDC0    |
| X | 2722 |      |  | BOOTSUBR |
| X |      | 288  |  | BSCIO    |
| X |      | 54   |  | BUFF     |
| X |      | 349  |  | CALPROC  |
| X |      | 626  |  | CCIR     |
| X |      | 334  |  | CCITABLS |
| X |      | 191  |  | CCIO     |
| X |      | 85   |  | CFUR     |
| X |      | 284  |  | CHARR0UT |
| X |      | 20   |  | CJ       |
| X |      | 17   |  | CJENDA   |
| X |      | 20   |  | CLOCK4   |
| X |      | 696  |  | CLS      |
| X |      | 218  |  | CLSTP    |
| X |      | 25   |  | CNMPROC  |
| X |      | 385  |  | C0C      |
| X |      | 52   |  | C0CD     |
| X |      | 157  |  | COMBAT   |
| X |      | 14   |  | COMBINE  |
| X |      | 31   |  | CONMAIN  |
| X |      | 495  |  | C00P     |
| X |      | 120  |  | COPYALL  |
| X |      | 21   |  | COPYT0   |
| X |      | 18   |  | COPYTRAN |
| X |      | 3    |  | CR00UT   |
| X |      | 3    |  | CR00UTL  |
| X |      | 274  |  | CSEC0M   |

|   |      |          |
|---|------|----------|
| X | 421  | CSEHAND  |
| X | 119  | CSES7    |
| X | 87   | CSES9    |
| X | 168  | CSEX560  |
| X | 397  | CYCUSR   |
| X | 266  | DEBUQR   |
| X | 95   | DEF      |
| X | 110  | DEFCON   |
| X | 213  | DELPRI   |
| X | 1186 | DELTA    |
| X | 50   | DELUTL   |
| X | 193  | DEVDMF   |
| X | 13   | DEVTRAN  |
| X | 11   | DFDCBS   |
| X | 269  | DISPLAY  |
| X | 218  | DLT      |
| X | 254  | DPSIO    |
| X | 425  | DRSP     |
| X | 178  | DSCIO    |
| X | 61   | DUMP     |
| X | 59   | EAPL     |
| X | 102  | ECBBLK   |
| X | 417  | ECBCHECK |
| X | 59   | ECBINIT  |
| X | 206  | ECBPST   |
| X | 452  | EDIT     |
| X | 248  | ELLACSL  |
| X | 77   | ELLAROOT |
| X | 51   | ELLASUM  |
| X | 1301 | ENQB     |
| X | 1161 | ENQUE    |
| X | 434  | ENTRY    |
| X | 364  | ERHNDLR  |
| X | 587  | ERRIFIL  |
| X | 18   | ERROR    |
| X | 60   | ESTD     |
| X | 257  | EVL      |
| X | 14   | FAUTH    |
| X | 52   | FBCD     |
| X | 737  | FILL     |
| X | 127  | FILLDCB  |
| X | 2    | FILLDCBA |
| X | 14   | FILTRAN  |
| X | 72   | FIN      |
| X | 13   | FIXARG   |
| X | 1385 | FIXHGP   |
| X | 238  | FIXSUB   |
| X | 1733 | FIX1     |
| X | 288  | FRES     |
| X | 98   | FRGD     |
| X | 915  | FSAVE    |
| X | 24   | GAC      |
| X | 96   | GENMD    |
| X | 177  | GERM     |
| X | 18   | GETARG   |
| X | 182  | GETFIELD |
| X | 67   | GETUSER# |
| X | 380  | GHOST1D  |
| X | 25   | GPHGP    |
| X | 102  | GRAN     |
| X | 137  | GRAND    |
| X | 90   | GRANSUB  |
| X | 43   | GRSUB    |
| X | 480  | HASPIO   |
| X | 12   | HEXDUMP  |
| X | 27   | HGPSTK   |
| X | 99   | HSPM     |
| X | 100  | IMC      |

L

|   |      |          |
|---|------|----------|
| K | 189  | INITIAL  |
| K | 268  | INITRCVR |
| K | 129  | INSYM    |
| K | 15   | INTARG   |
| K | 84   | IN1      |
| K | 22   | IN2      |
| K | 152  | I0D      |
| K | 494  | I0Q      |
| K | 692  | I0RT     |
| K | 1653 | JIT      |
| K | 274  | J0BR     |
| K | 24   | JULIAN   |
| K | 1217 | KEYN     |
| K | 33   | KEYSUB   |
| K | 290  | LBLT     |
| K | 188  | LDEV     |
| K | 518  | LDR      |
| K | 262  | LIMR     |
| K | 74   | LINK     |
| K | 188  | LIST     |
| K | 47   | LIST0IP  |
| K | 701  | LNKTRC   |
| K | 276  | L0ADR    |
| K | 73   | L0CCT    |
| K | 402  | L0G0N    |
| K | 166  | L0GRT    |
| K | 6    | M:EIDCB  |
| K | 6    | M:E0DCB  |
| K | 301  | MAGTAPE  |
| K | 95   | MAIL0X   |
| K | 702  | MBS      |
| K | 676  | MM       |
| K | 363  | MMNR     |
| K | 159  | M0CI0P   |
| K | 22   | M0D      |
| K | 752  | M0DIFY   |
| K | 117  | MTAP     |
| K | 122  | MUL      |
| K | 143  | NSLP     |
| K | 77   | NSTAP    |
| K | 290  | 0BSE     |
| K | 265  | 0CQ      |
| K | 194  | 0PL0     |
| K | 84   | 0PN      |
| K | 220  | 0PND     |
| K | 271  | 0PNF     |
| K | 584  | 0PNL     |
| K | 292  | 0PNLD    |
| K | 49   | 0PNSTARF |
| K | 812  | 0PNTF    |
| K | 370  | 0UTSYM   |
| K | 13   | PART     |
| K | 189  | PASS3    |
| K | 30   | PCL      |
| K | 40   | PCLLIST  |
| K | 138  | PFSR     |
| K | 3    | PLOT     |
| K | 7    | PM       |
| K | 199  | PMD      |
| K | 9    | PMDAT    |
| K | 258  | P0S      |
| K | 972  | PPS      |
| K | 53   | PRELOAD  |
| K | 21   | PRTERR   |
| K | 831  | PS1      |
| K | 45   | PS2      |
| K | 443  | PURGE    |
| K | 584  | PV       |

|   |      |          |
|---|------|----------|
| X | 25   | PWP      |
| X | 38   | PODCBS   |
| X | 287  | P2CCI    |
| X | 230  | P2COC    |
| X | 6    | P2DCBS   |
| X | 33   | P2LDV    |
| X | 22   | P2OPL    |
| X | 103  | P2REB    |
| X | 3    | P2SCRU   |
| X | 39   | QPRER    |
| X | 97   | QREMAKE  |
| X | 370  | RA       |
| X | 748  | RAS      |
| X | 45   | RATES    |
| X | 1284 | RBBATM   |
| X | 478  | RBBATR   |
| X | 260  | RBSSB    |
| X | 239  | RCVCTL   |
| X | 18   | RCVDEF   |
| X | 179  | RCVRI0   |
| X | 65   | RCVTAB   |
| X | 1177 | RDERLOG  |
| X | 750  | RDF      |
| X | 347  | RDL      |
| X | 37   | RDWRT    |
| X | 51   | READBI   |
| X | 984  | RECUNFIG |
| X | 156  | RECOVER2 |
| X | 128  | REQDC    |
| X | 55   | RTBOOT   |
| X | 507  | RTNR     |
| X | 97   | RTPFSR   |
| X | 1339 | RTR00T   |
| X | 106  | RUNR     |
| X | 976  | RUNROM   |
| X | 33   | RVGHOST  |
| X | 77   | S:0VRLYR |
| X | 158  | SACT     |
| X | 57   | SAPL     |
| X | 19   | SCHDBUB  |
| X | 121  | SCHED    |
| X | 3    | SCRAM    |
| X | 34   | SDEVICE  |
| X | 402  | SEGLD    |
| X | 416  | SHOW     |
| X | 58   | SNAP     |
| X | 127  | SPROCS   |
| X | 38   | SQZ      |
| X | 13   | SSDAT    |
| X | 57   | SSSL     |
| X | 58   | SSTD     |
| X | 44   | STATS    |
| X | 140  | STEP     |
| X | 46   | STNUTL   |
| X | 15   | STORVLP  |
| X | 2377 | STPNR    |
| X | 330  | SUBR     |
| X | 16   | SUMDCB   |
| X | 41   | SUPCLS   |
| X | 74   | SUPER1   |
| X | 273  | SUPER2   |
| X | 64   | SUPER3   |
| X | 30   | SUSPTERM |
| X | 345  | SWAPPER  |
| X | 111  | SYMCON   |
| X | 64   | SYMFILS  |
| X | 34   | SYMSUBR  |
| X | 6    | SYMTAB   |



|   |     |          |
|---|-----|----------|
| X | 561 | SYSCN    |
| X | 102 | SYSMAK   |
| X | 132 | T:DSMNT  |
| X | 6   | T:JOBENT |
| X | 641 | T:OV     |
| X | 115 | TABLES   |
| X | 189 | TAPECHST |
| X | 119 | TAPEFCN  |
| X | 8   | TCATCH   |
| X | 59  | TELLUSR  |
| X | 76  | TELScope |
| X | 14  | TEXTARG  |
| X | 93  | TFDUTL   |
| X | 63  | TFILE    |
| X | 109 | THEUNCOC |
| X | 13  | TICDCBS  |
| X | 59  | TICINIT  |
| X | 39  | TICKEYIN |
| X | 198 | TICLABOR |
| X | 51  | TICROOT  |
| X | 149 | TIM      |
| X | 27  | TOPROOT  |
| X | 40  | TPC      |
| X | 14  | TPCDMS   |
| X | 196 | TPG      |
| X | 748 | TPG1     |
| X | 116 | TPQ1     |
| X | 91  | TPQ2     |
| X | 40  | TQR00T   |
| X | 369 | TRAPC    |
| X | 167 | TREER    |
| X | 339 | TSIO     |
| X | 306 | TSTHQP   |
| X | 158 | TYPR     |
| X | 897 | UBCHAN   |
| X | 800 | UCAL     |
| X | 126 | UTILITY  |
| X | 55  | UTMBPMBT |
| X | 26  | VDCB     |
| X | 116 | V2IO     |
| X | 25  | WRT      |
| X | 244 | WRD      |
| X | 350 | WTF      |
| X | 96  | XDLT     |
| X | 18  | XLIMIT   |
| X | 201 | XMONITOR |
| X | 97  | XPART    |
| X | 295 | 2780IO   |
| X | 128 | 3270IO   |
| X | 9   | 7TAP     |
| X | 3   | 7446IO   |

.. 322 FILES LISTED