

MEMBER NAME DOCOPERL

5) BAD TYPIST ENTRY IN LINE N.

IN ABSOLUTE LINE N THERE IS AN APPARENT TYPIST ENTRY (AN ASTERISK-CAPITAL LETTER IN COLS 1-2), BUT EITHER IT DIDN'T HAVE ANY DIGITS OR ELSE ITS DIGIT PORTION ENDED WITH A NONBLANK CHARACTER THAT WAS NOT PART OF A '\$@' SEQUENCE.

6) ERRONEOUS END OF CORRECTION.

THIS MESSAGE OCCURS IN THE EVENT OF AN UNSUCCESSFUL FLUSHING ERROR. THE PROGRAM STOPS AFTER THIS MESSAGE.

7) ILLEGAL FCN CHAR

AN APPARENT FUNCTION OR COMMAND CHARACTER THAT IS NOT A C, D, OR I, EITHER SMALL OR CAPITAL. THIS IS A FLUSHING ERROR.

8) NONBLANK FOLLOWS FCN CHAR

THE CHARACTER FOLLOWING A LEGAL APPARENT FUNCTION CHARACTER IS NOT A BLANK. THIS IS A FLUSHING ERROR.

9) NO LINE NUMBER

IN AN APPARENT CORRECTION STATEMENT STATEMENT WITH A LEGAL FUNCTION CHAR FOLLOWED BY A BLANK THERE IS NOT A LEGAL LINE NUMBER SPECIFICATION. THIS IS A FLUSHING ERROR.

10) MULTILINE I CMND

A CORRECTION STATEMENT WITH A FUNCTION CODE OF 'I' AND MULTILINE LINE SPECS. THIS IS A FLUSHING ERROR.

11) NEGATIVE 1ST WORD SPEC.

IN A PHRASE COMMAND THE LOGICAL LOCATION OF THE FIRST WORD SPECIFIED IS BEFORE THE FIRST WORD OF THE LOGICAL LINE. THE LOGICAL LINE STARTS AFTER THE TYPIST ENTRY, IF ANY. THIS ERROR USUALLY OCCURS ON A LINE WITH A TYPIST ENTRY WHEN THE CORRECTION TRIES TO CORRECT THE TYPIST ENTRY.

12) NEGATIVE 2ND WORD SPEC

SIMILAR TO THE PRECEDING ERROR, BUT EVEN THE LAST WORD OF THE PHRASE PRECEDES THE FIRST LOGICAL WORD OF THE LINE.

13) NO '/ ' (SLASH-BLANK)

EITHER THERE WAS NO '/ ' TO DELIMIT THE END OF NEW CHANGE OR INSERTION TEXT IN A CORRECTION STATEMENT, OR ELSE THE '/ ' OCCURRED IMMEDIATELY SO THAT THERE WAS TEXT OF ZERO LENGTH. THIS IS A FLUSHING ERROR.

ICISCAN ERROR MESSAGES

***** ILLEGAL CHAR 'X' IN LINE J, Y* X IS THE ILLEGAL CHAR, J IS THE LINE NUMBER, AND Y IS THE DECIMAL VALUE OF THE CHARACTER IN CASE THE CHARACTER DOESN'T PRINT (AS IS USUALLY THE CASE WITH ILLEGAL CHARACTERS). THE ILLEGAL CHARACTER IS CONVERTED TO A SLASH SO THAT IT MAY BE NOTICED MORE EASILY IN LATER STAGES OF THE INPUT SYSTEM.

MEMBER NAME DOCOPERL

'\$\$\$\$\$\$\$\$\$ APPARENT TYPIST ENTRY IS X LINES FROM PREVIOUS LINE J,
PREVIOUS PAGE WAS N' SELF EXPLANATORY. OCCURS WHENEVER A NEW
PAGE DOES NOT START 30 LINES FROM THE PREVIOUS ONE.

'\$\$\$\$\$\$ BAD PAGE SEQUENCE XY' X IS THE PREVIOUS PAGE AND Y IS
THE CURRENT PAGE. THIS OCCURS WHENEVER THE NUMBER OF A PAGE
DOES NOT FOLLOW THAT OF THE PREVIOUS PAGE.

'\$\$\$\$\$ BAD TYPIST ENTRY, LINE J LLLLL' WHERE 'LLLLL' IS AN IMAGE
OF THE LINE AS IT CURRENTLY EXISTS IN MEMORY AND J IS THE LINE
NUMBER. UNLESS OPTION 4 IS SPECIFIED THIS MESSAGE IS GENERATED
WHENEVER THERE IS AN ASTERISK-CAPITAL LETTER PAIR IN THE FIRST
2 PLACES OF A LINE AND THESE ARE NOT FOLLOWED BY ONE OR MORE
DECIMAL DIGITS ENDING WITH A BLANK. IF OPTION 4 IS SPECIFIED THEN
THE MESSAGE IS NOT GENERATED IN THE SPECIFIC INSTANCE THAT THE DECIMAL
DIGITS END WITH A '\$@' (DOLLAR SIGN-AT SIGN).
NOTE THAT ALL 3 TYPIST ENTRY ERROR MESSAGES START WITH DOLLAR SIGNS,
AND THAT ONLY TYPIST ENTRY ERROR MESSAGES START WITH DOLLAR SIGNS.

'***** BAD TRIPLE 'AT' IN REC J, LLLLL' WHERE J IS THE LINE
OR RECORD NUMBER, AND 'LLLLL' IS THE CURRENT IMAGE OF THE LINE IN
MEMORY. THIS MESSAGE OCCURS WHEN A LINE HAS A TRIPLE 'AT' FOLLOWED
BY ANY NONBLANK CHARACTERS SUCH AS A FOURTH 'AT' ON THE SAME LINE.
THE LINE IS ENTIRELY LEFT OUT, HOWEVER PAGE ENTRY PROCESSING HAS
ALREADY BEEN DONE.

'***** ILLEGAL SECTION '**X' IN LINE J WHERE X IS THE CHAR FOLLOWING
AN ASTERISK IN THE STRUCTURED TEXT THAT IS NOT A SMALL LETTER.
THE SECTION IS PUT INTO THE OUTPUT FILE ANYWAY, BUT IF THE CHAR
WAS A CAPITAL LETTER THEN IS IS PUT OUT AS A SMALL LETTER.

' E-*XLLLLL' WHERE 'X' IS THE SECTION TYPE CHARACTER AND 'LLLLL' IS
THE BODY OF THE SECTION. THIS MESSAGE, SIMILAR TO THE ' M-*XLLLLL'
MESSAGE, IS USED IN PLACE OF ' M-*XLLLLL' WHEN THE SECTION IS
ASSOCIATED WITH AN ILLEGAL DELIM OR ILLEGAL SECTYPE ERROR. IF X IS
A SMALL LETTER FOR AN ILLEGAL SECTYPE ERROR THEN THE ORIGINAL
CHARACTER WAS CAPITAL X.

'////// ILLEGAL DELIM 'X' IN LINE J, MODE- N' WHERE X IS ONE OF THE
9 BASIC DELIMITERS USED BY ICISCAN, AND N IS THE MODE OF THE PIECE
OF TEXT PRECEDING THE ILLEGAL DELIMITER. THE MODE OF A PEICE
DETERMINES WHAT THAT TEXT IS CONSIDERED TO BE. FOR EXAMPLE IN
MODE 0 THE TEXT IS CONSIDERED PART OF SOME STRUCTURED OUTPUT SECTION,
HENCE MODE 0 IS CALLED 'STRUCTURED TEXT MODE'. MODE -3 IS (INTENDED)
FOR INDEX ENTRIES FOLLOWING 2 LEFT BRACKTES. THE MODE -3 STARTS
WITH A PLUS SIGN OR DOLLAR SIGN, AND ENDS WITH AN EQUAL SIGN
(PREFERABLY), HOWEVER IT MAY ALSO END WITH A RIGHT BRACKET, PERCENT
SIGN, OR ASTERISK. NATURALLY, ENDING WITH ANYTHING OTHER THAN AN
EQUAL SIGN CAUSES AN ILLEGAL DELIM ERROR.

'*** PAGE NUMBER TOO LONG IN OR BEFORE LINE J' THIS MESSAGE IS
FOR A LONDON STAGE PAGE NUMBER OF THE DECIMAL VARIETY WITH MORE
THAN 4 DIGITS. THE NEW PAGE NUMBER IS NOT ACCEPTED. NO ERROR
MESSAGE IS GIVEN FOR APPARENT PAGE ENTRIES NOT ENDING WITH BLANKS -
THEY ARE IGNORED.

'***** BAD PAGE IN OR BEFORE LINE J' AN APPARENT ROMAN PAGE
ENTRY HAD A CHARACTER IN IT THAT WAS NOT A CAPITAL I, V, OR X.

MEMBER NAME DOCOPERL

NO ERROR MESSAGE IS GEVEN FOR APPARENT ROMAN PAGE ENTRIES WITH BLANKS. THEY ARE IGNORED.

- SAVEDT LOG-TYPE ERROR MESSAGES ..

FUNP 'FUNNY PAGE NUMBERING' PAGE ENTRIES, OTHER THAN THE FIRST ONE IN A RUN ARE NOT IN CONSECUTIVE ORDER. THIS CHECKING IS UNRELATED TO MTST TAPE ORDER OR DATE SEQUENCE CHECKING.
MTOO NONCONSECUTIVE MTST ENTRIES.
NORB NO RIGHT BRACKET.
IXOB INDEX OUTSIDE OF BRACKETS.
NORX NO RIGHT HAND DELIMITER OF AN INDEX ENTRY THAT HAS A LEFT
ICSB INDEX CAUGHT CROSSING SECTION OR BRACKET
BNDX LAST CHARACTER OF AN INDEX ENTRY IS NOT A SMALL LETTER OR QUOTE.

STRUCTUR ERROR NOTE/LOG TYPE MESSAGE CODES ..

BDYR IN A LADDER REFERENCE THE APPARENT YEAR WAS EARLIER THAN 1660 OR LATER THAN 1800. THE LADDER REFERENCE WAS TREATED AS A CAST ITEM.
NL11 NEGATIVE LENGTH ITEM. VERY RARE. FAIRLY HARMLESS TO STRUCTUR, BUT DON'T KNOW IF IT WILL HARM LADDER. MAY OCCUR WHEN THE DELIMITER IS THE FIRST CHAR OF A POTENTIAL ITEM (IF THAT FIGURES) IN A GITM CALL AND THE DELIMITER IS FOLLOWED ONLY BY BLANKS OR PERIODS OR OTHER DELIMITERS WITHIN THE RANGE. IF IN ANY OTHER CASE YOU MAY WANT TO CALL WILL, ESPECIALLY IF LADDER BOMBS ON THE DATA. NL11 IS FOLLOWED INVARIABLY BY NL12.
NL12 RIGHT HAND DATA FOR NL11 ERROR. NL11 GIVES LEFT HAND DATA AS WITH NIT1/NIT2 PAIR OF ERROR MESSAGES.
NSEC BLK HAS NO SECTION DELIMITER. THE BLK IS PROCESSED ANYWAY. IF THIS ERROR OCCURS WITH ICISCAN OUTPUT THEN ICISCAN SHOULD BE AT FAULT, IF WITH SAVEDT OUTPUT THEN SAVEDT'S INPUT DATA IS MORE LIKELY TO BE THE CAUSE.
NIT1 FIRST ERROR MESSAGE FOR MISSING ITEM WHERE ONE IS REQUIRED. THE TEXT SHOULD BE THE LEFT HAND AREA ASSOCIATED WITH THE MISSING ITEM. NIT2 ALWAYS FOLLOWS NIT1.
NIT2 SECOND ERROR MESSAGE FOR MISSING ITEM. ALWAYS FOLLOWS NIT1. GIVES THE RIGHT HAND AREA ASSOCIATED WITH THE ITEM. THE NUMBERS ARE SUPPOSED TO BE THE LEFT AND RIGHT HAND PTRS TO THE ITEM RESPECTIVELY.
ISEC ILLEGAL SECTION TYPE. A BLANK-PREFIX WAS ENCOUNTERED THAT WAS NOT FOLLOWED BY ONE OF THE SMALL LETTERS THAT DENOTE A LEGAL TYPE OF SECTION.
NTTL A PERFORMANCE OR AFTERPIECE SECTION HAS NO ' . ' THREE CHAR LENGTH STRING IN IT (THE 1ST OF WHICH DELIMITS THE PLAY TITLE IN THE SECTION).
XDAT 4 DECIMAL NUMBERS WERE FOUND IN THE PRE-THEATRE PART OF A PLAY SECTION. THE 1ST THREE WERE INTERPRETED AS YEAR, MONTH, & DATE RESPECTIVELY. THE FOURTH WAS IGNORED.
DPRT ONE OR MORE PARTS OF THE MOST RECENT NEW DATE IS OUTSIDE ITS LEGAL RANGE. THE OLD VALUE OF THE OUT OF RANGE PART IS NOT CHANGED.
DCHG THE DIFFERENCE BETWEEN THE LAST PREVIOUS DATE AND THE NEWEST ONE IS GREATER THAN ABOUT 100 DAYS, OR ELSE IT'S EARLIER THAN THE OLD DATE. THE NEW DATE IS ACCEPTED ANYWAY. TOO BAD, IT'S PROBABLY WRONG, BUT MAYBE IT WILL BE SET RIGHT AGAIN SOON.
UNVT IN A SYNTACTIC ROLE-ACTOR GROUP AN APPARENT TIME ENTRY CONTAINED A CHARACTER THAT IS NOT ALLOWED IN TIME ENTRIES. THE APPARENT TIME ENTRY WAS TAKEN AS A TIME ENTRY ANYWAY, COMPLETE WITH THE ILLEGAL CHARACTER.
DRNG IN AN APPARENT LADDER REFERENCE THE DAY OF THE MONTH WAS GREATER

MEMBER NAME DOCOPERL
 THAN 31. THE APPARENT LADDER REFERENCE WAS TREATED AS A SYNTACTIC
 ROLE OR ACTOR.
 MNTH IN AN APPARENT LADDER REFERENCE THE MONTH OF THE YEAR COULD NOT
 BE DETERMINED. THE MONTH MUST BE STATED BY ONE OF THE FOLLOWING
 CODES .. JAN,FEB,MARCH,APRIL,MAY,JUNE,JULY,AUG,SEPT,OCT,NOV,DEC.
 EACH MONTH MUST START WITH A CAPITAL , WITH THE OTHER LETTERS BEING
 SMALL. A PERIOD MAY FOLLOW ANY OF THESE CODES.
 NOMN STILL TO BE EXPLAINED.
 SUSP A PAGE NUMBER ENTRY WAS FOUND IN WHICH THE NEW PAGE NUMBER WAS
 MORE THAN ONE GREATER THAN THE PREVIOUS NUMBER OR ELSE WAS
 SMALLER THAN THE PREVIOUS PAGE NUMBER.
 THE NEW PAGE NUMBER IS ACCEPTED ANYWAY.

LADDER ..

IXGO SOMETHING IS WRONG. PROGRAM ERROR. VARIABLE IXG HAS BECOME 0
 DURING FINAL OUTPUT FORMATTING WHILE INTERPRETING THE OUTPUT
 CHAIN. CALL WILL. (NEAR LABEL ENDIN, STMT 521).
 OGRP ON INPUT A GROUP WITH A LENGTH OF 0 WAS ENCOUNTERED . IT WAS
 IGNORED AND PROCESSING WAS CONTINUED WHTH THE NEXT GROUP,
 IF ANY. (AFTER LABEL 1STGRP, NEAR STMT 130).
 NEFA SOMETHING WRONG. A CHAR WHICH IS SUPPOSED TO BE HEX 'FA'
 IS NOT HEX 'FA'. EITHER LADDER OR STRUCTUR IS TO BLAME.
 RKEY NO MATCH FOR ROLE IN KEYING ATTEMPT IN A PAIRED ROLE-ACTOR GROUP
 THAT HAS A SIGNED ACTOR. THE GROUP IS IGNORED. PROCESSING
 CONTINUES WITH THE NEXT GRP. THE NUMBER POINTS TO THE ROLE.
 AKEY NO MATCH IN KEY SEARCH KEYING ON AN ACTOR IN A PAIRED GRP
 IN WHICH THE 1ST ROLE IS SIGNED. THE GRP IS IGNORED.
 PROCESSING CONTINUES WITH THE NEXT GRP. THE NUMBER POINTS TO
 THE 1ST ROLE IN THE GROUP.
 NGCB NO MORE GROUP CONTROL BLOCKS LEFT. REQUIRES RECOMPILATION
 WITH NUMBER OF GCB'S INCREASED. THE NUMBER PTS TO THE START OF
 THE 1ST GRP LEFT OUT. BE SURE TO CHECK THE NUMBER OF ICB'S TOO.
 SUCCEEDING GRPS ARE NOT PROCESSED, AND THUS NOT WRITTEN OUT.
 NICB SAME AS NGCB, BUT FOR ITEM CONTROL BLOCKS.
 XLDR EXTRA TITLE LADDER ENTRY ENCOUNTERED IN SECTION. ONLY ONE LADDER
 LADDER ENTRY IS ALLOWED IN A TITLED SECTION. THE SECOND AND
 LATER ENTRIES ARE IGNORED.
 ISEC ILLEGAL SECTION LETTER.
 LERA LADDER GRP REFERRED-TO HAS NOTHING TO DELIMIT END OF THE TITLE,
 IF ANY, THEREFORE THE TITLE, IF ANY, WAS THE ONLY DATA THAT
 MIGHT HAVE BEEN GAINED BY THE LADDER REF, USUALLY LADDER GRPS
 ARE FOR MORE THAN JUST A TITLE.
 NCGM 'CAST GRP NO MATCH'. A REFERRED-TO SECTION FOR A CAST GRP LADDER
 REF WAS FOUND, BUT THE SECTION HAD NO MATCH FOR THE FIRST ROLE
 ROLE IN THE REFERRING GRP.
 RNMP ROLE NO MATCH PROGRAM ERROR. SHOULD NEVER OCCUR. CALL WILL.
 OGCB A COMPLETELY EMPTY GRP HAS OCCURRED OR BEEN FOUND SOMEWHERE IN
 THE MIDST OF LADDER PROCESSING. IT MAY BE AN ERROR, BUT IN ANY
 CASE SHOULD CAUSE LITTLE TROUBLE. CALL WILL.
 INKY INCOMPLETE KEYING ON A CGLE. ONE OR MORE ROLES DO NOT MATCH
 WHILE AT LEAST THE FIRST ROLE IN THE REFERRING GRP DOES HAVE A MATCH
 GDLT INABILITY TO KEY ON ANYTHING IN A GRP DELETION ATTEMPT.
 URDT INABILITY TO KEY ON ROLE TO BE DELETED IN UNPAIRED ROLE
 DELETION ATTEMPT.
 UADT SAME AS URDT, BUT FOR ACTOR.
 KRNF KEYED RECORD NOT FOUND. A LADDER SEARCH FAILED TO FIND THE
 SECTION SOUGHT BECAUSE IT WAS NOT ON THE DISK. IF THIS MESSAGE IS
 IMMEDIATELY PRECEDED BY ONE OR MORE 'CRTITL=OLDTITL=' MESSAGES

MEMBER NAME DOCOPERL

THEN IT MAY BE JUST THE BAD MATCHES INDICATED IN THOSE MESSAGES, THAT IS, IT FOUND THE RECORD, BUT GOT A BAD COMPARE ON THE 1ST TRY, SO IT TRIED AGAIN ON THE NEXT TRK, BUT THEN THERE WAS NO RECORD AT ALL WITH THE RIGHT KEY. THE NUMBER TELLS ON WHICH TRY THE FAILURE OCCURRED. 1-1ST TRY AND INDICATES NOT EVEN A BAD COMPARE.

- IDLT IN AN ITEM DELETION IN A PAIRED GRP THE ITEM TO BE DELETED COULD NOT BE FOUND IN THE REFERRED-TO GRP. THE ORIGINAL ITEM IS LEFT INTACT BUT WITHOUT THE MINUS SIGN (THAT IS, IT IS NOT DELETED EITHER), AND NO FURTHER PROCESSING IS ONE ON THE GRP.
- NTRK THE DATE/TRACK MAP INDICATES THAT NO SECTION HAS BEEN WRITTEN IN THE LADA FILE WITH THE DATE FOUND IN A LADDER REFERENCE KEY. THE LADDER REFERENCE IS IGNORED, AND PROCESSING CONTINUES WITH THE NEXT ITEM.
- FREF FORWARD REFERENCE IN A LADDER ENTRY. THE DATE INVOLVED IS ON OR LATER THAN THE DATE OF THE SECTION IN WHICH THE LADDER ENTRY OCCURS. THE ENTRY IS IGNORED. PROCESSING CONTINUES WITH THE NEXT ITEM.
- TTLC NO TITLE MATCHING THE ONE IN A BOX CONTAINING A LADDER ENTRY WAS FOUND IN ANY OF THE LADDER BLOCKS SEARCHED AS A RESULT OF THE LADDER ENTRY. THE NUMBER POINTS TO THE LEFT-HAND CHARACTER OF THE LADDER ENTRY.
- 2TIM MORE THAN ONE TIME ENTRY ENCOUNTERED IN A SINGLE GROUP. THE SECOND ENTRY IS IGNORED. PROCESSING CONTINUES WITH THE NEXT ITEM.
- OTSZ SIZE OF AN OUTPUT BLK IS GREATER THAN 3588 BYTES, SO IT CAN'T FIT ON A TRACK. REPROGRAMMING WILL BE NECESSARY UNLESS THE BLOCK'S SIZE CAN BE REDUCED TO 3588 OR LESS (OR SOMETHING). THE BLK WAS NOT WRITTEN AT ALL. THE BLK WAS PROCESSED COMPLETELY IN OTHER RESPECTS. PROCESSING CONTINUES NORMALLY. THE NUMBER IS THE BLK'S SIZE.

ITEMSGET ..

- ITHE ILLEGAL CHARACTER IN THEATRE, USUALLY A CAPITAL
- ITTL ILLEGAL CHARACTER IN TITLE
- IROL ILLEGAL CHARACTER IN ROLE, OFTEN AN 'EC'
- IACT ILLEGAL CHARACTER IN ACTOR
- OGRP 'GRP' LENGTH IS LESS THAN 2, INCLUDING CONTROL CHARS. PROGRAMMING ERROR SOMEWHERE, EITHER IN ITEMSGET OR BEFORE.
- NEFA ANOTHER PROGRAMMING ERROR, DEFINITELY IN ITEMSGET.
- 2TTL TWO TITLES IN THE SAME BLK, OR AT LEAST 2 ITEMS WHICH ARE NOT ROLE, ACTORS, OR TIME ENTRIES, WHICH ARE SUPPOSED TO BE ALL THAT EXIST BESIDES TITLES AT THIS STAGE.
- 2TIM 2 TIME ENTRIES ENCOUNTERED IN ONE GROUP, SECOND ONE IS IGNORED.
- FSEQ PROGRAM ERROR. ITDM OUTPUT HAS NOT CAUGHT UP TO ITEM OUTPUT ON THE DA OUTPUT FILE AT THE END OF THE PROGRAM. APPARENT FAILURE ASSOCIATED WITH 2ND PASS FOR INCLUSIVENESS LEVELS 2, 3, OR 4. ONLY QUALITY OF OUTPUT SHOULD BE AFFECTED, BUT CALL WILL DUE TO PROGRAM ERROR. RERUNNING WITH INCLUSIVENESS LEVELS 2, 3, AND 4 LEFT OUT MAY HELP.

FORMAT ..

NO ERRORS DETECTED BY FRMAT AT PRESENT.

FORMAT OF SORT RECORDS ..

BYTE 1	SECTION TYPE CHARACTER.	1 BYTE
BYTES 2-9	DATE IN FORMAT 'YYYYMMDD'.	8 BYTE
BYTES 10-17	THEATRE, PADDED ON RIGHT WITH BLANKS, IN LOWER CASE.	8 BY

MEMBER NAME DOCOPERL

BYTES 18-100 TITLE PADDED ON RIGHT WITH BLANKS.

83 BYTE

BYTES 101-140 ROLE, INCLUDING 2 CHARS WHICH INDICATE

QUESTIONABLE STATUS (VIA 'SEE' TYPE LADDER REFERENCE) 40 E

BYTES 141-180 ACTOR, IN SAME FORMAT AS ROLE. 40 E

BYTES 181-188 TIME ENTRY 8 E

TOTAL LENGTH IS 188 BYTES. PREFERABLY BLOCKED BY FACTOR OF 19.

ICIFIX GENERAL DESCRIPTION

ICIFIX IS AN INTERACTIVE TEXT EDITING PROGRAM OPERATED FROM THE OPERATOR'S CONSOLE OF AN OS/360 SYSTEM. IT IS LINE ORIENTED AND SPECIALIZED FOR FIXING A SMALL NUMBER OF ERRORS IN RAW DATA IN ICI FORMAT. ITS INPUT IS A SEQUENTIAL FILE, IN, WITH AN LRECL OF 80. PRINCIPAL OUTPUT IS TO ANOTHER SEQUENTIAL FILE, TOUT, WITH THE SAME LRECL. OUTPUT MAY ALSO GO TO THE PRINTER, AND, OF COURSE, COMMANDS AND PROGRAM RESPONSES ARE MADE ON THE CONSOLE.

HERE IS A DESCRIPTION OF THE COMMANDS ..

(PARTS OF COMMAND EXAMPLES INSIDE PARENTHESES ARE OPTIONAL)

- 1) 'CHOP' TERMINATES AN EDITING SESSION IMMEDIATELY, NOT PUTTING OUT ANY MORE LINES TO THE OUTPUT FILE. THE CURRENT LINE IS NOT PUT OUT. LINES PRECEDING THE CURRENT LINE HAVE ALREADY BEEN PUT OUT. 'CHOP' IS TYPED IN SMALL LETTERS.
- 2) 'BACKUP' TRANSFERS CURRENT LINE AND REMAINDER OF INPUT FILE TO OUTPUT FILE, THEN TERMINATES PROGRAM. TYPED IN SMALL LETTERS.
- 3) 'ND' WHERE 'N' IS A NONNEGATIVE INTEGER, AND 'D' IS A SMALL 'D'. CAUSES THE DELETION OF N LINES BY READING N LINES FROM THE INPUT FILE AND NOT PUTTING THEM OUT TO THE OUTPUT FILE. IF 'D' ALONE IS TYPED THEN '1D' IS ASSUMED.
- 4) 'N' WHERE 'N' IS A NONEGATIVE INTEGER. READS N LINES, PUTTING INPUT INTO THE OUTPUT FILE, STARTING WITH THE CURRENT LINE. THIS IS CALLED THE 'ADVANCE' COMMAND.
- 5) 'NL' WHERE 'N' IS A NONNEGATIVE INTEGER, AND L IS THE SMALL LETTER, 'L'. SETS THE LINE COUNT LIMIT FOR A SEARCH TO N. N=0 MEANS NO SEARCH AT ALL. N=1 MEANS SAME LINE ONLY.
- 6) 'zc ('CENT SIGN-C') 'z' IS THE CENT SIGN. 'C' IS ANY CHARACTER STRING EXCEPT ONE CONTAINING A CENT SIGN OR ONE CONSISTING ONLY OF BLANKS. THIS COMMAND CAUSES THE PROGRAM TO SEARCH FOR THE CHARACTER (NOT THE STRING) FOLLOWING THE CENT SIGN FOR UP TO THE NUMBER OF LINES ALLOWED BY THE SEARCH LIMIT (SEE COMMAND NO. 5, ABOVE). IF THE CHAR IS FOUND THEN THE LINE IS TYPED UP TO AND INCLUDING THE CHAR OF THE SEARCH. YOU MAY THEN OVERLAY NEW TEXT, BEGINNING WITH THE SEARCH CHAR, UP TO THE END OF THE LINE. THIS IS DESCRIBED IN THE REPLACE COMMAND BELOW.
- 7) 'xz(y(z))' THE REPLACE (AND POSSIBLY SEARCH AGAIN) COMMAND. THE BASIC FORM OF THIS COMMAND IS 'xz' WHERE 'x' IS A CHAR STRING, AND 'z' IS THE CENT SIGN. THIS COMMAND IS INTENDED TO BE GIVEN AFTER A SEARCH COMMAND, FOR EXAMPLE COMMAND NO. 6. THE REPLACE COMMAND ALLOWS YOU TO REPLACE CHARACTERS, BEGINNING WITH THE SEARCH CHAR ITSELF (THE LAST CHAR TO BE TYPED IF THE SEARCH IS SUCCESSFUL) AND EXTENDING FOR THE LENGTH OF X OR TO THE END OF THE LINE, WHICHEVER IS SHORTER. IF THIS COMMAND IS NOT GIVEN IMMEDIATELY AFTER & IN RESPONSE TO A SEARCH COMMAND OR EQUIVALENT THEN THE REPLACEMENT STARTS WITH THE FIRST CHAR OF THE CURRENT LINE.
IF THE OPTIONAL PART, 'y', IS TYPED (Y IS ANOTHER CHAR STRING NOT CONTAINING 'z', THE CENT SIGN) THEN, AFTER THE FIRST PART OF THE COMMAND IS EXECUTED, A SEARCH WILL BE MADE FOR THE FIRST CHAR OF Y. IF THE FIRST CHAR IS A BLANK THEN THE BLANK MUST BE FOLLOWED BY A NONBLANK CHARACTER, SUCH AS ANOTHER 'z' (CENT SIGN).
- 8) 'zz(y(z))' A CENT SIGN AS THE FIRST CHAR OF A COMMAND CONTAINING ANOTHER CENT SIGN MEANS TO CREATE A NEW LINE INSERTED BEFORE THE CURRENT ONE. THE NEW LINE MAY BE OF ANY LENGTH UP TO 75 CHARACTERS. IT WILL BE PADDED ON THE RIGHT WITH NULL CHARACTERS (PREFIXES, OR THE PL/1 'OR' SYMBOL). IF THERE ARE

MEMBER NAME DOCFIX

ANY NONBLANK CHARACTERS AFTER THE SECOND CENT SIGN THEN THE CHAR AFTER THE CENT SIGN IS TAKEN TO BE A NEW SEARCH CHAR AS IN THE REPLACE COMMAND.

CREATING A LINE, OR DELETING THEM FOR THAT MATTER IS TO BE AVOIDED IF POSSIBLE SINCE IT CAUSES MORE ICISCAN ERROR MESSAGES AND UPSETS THE LINE NUMBER CROSSREFERENCE SYSTEM.

9) 'CHECK' TURNS ON THE ERROR CHECKING FUNCTION.
THIS IS TYPED IN SMALL LETTERS.

10) 'NOCHECK' TURNS OFF THE ERROR CHECKING FUNCTION.
WHEN THE PROGRAM STARTS, THIS FUNCTION IS OFF.
TYPED IN SMALL LETTERS.

11) 'PRINT' AFTER EXECUTION OF THIS COMMAND LINES PUT INTO THE OUTPUT FILE WILL ALSO BE PUT INTO THE SYSPRINT FILE (IN OTHER WORDS, THEY WILL BE PRINTED ON THE PRINTER). THIS COMMAND IS TYPED IN SMALL LETTERS. THE 'PRINT' FUNCTION IS OFF WHEN THE PROGRAM STARTS. IT IS VERY EASY TO FORGET AND LEAVE THE PRINT ON WHEN EXECUTING A BIG LINE CHANGE COMMAND, THUS PRINTING A LARGE PORTION OF A BATCH, UNLESS YOU CANCEL. THIS IS THE MOST IMPORTANT POINT TO REMEMBER IN OPERATING THE PROGRAM, AS IT GENERALLY MEANS RESTARTING THE EDITING SESSION.

12) 'NOPRINT' THIS TURNS OFF THE PRINT FUNCTION ABOVE. THE 'PRINT' FUNCTION IS OFF WHEN ICIFIX BEGINS EXECUTION.
TYPED IN SMALL LETTERS.

13) 'NG' WHERE 'N' IS A NONNEGATIVE INTEGER AND 'G' IS THE SMALL 'G'.
IF N IS GREATER THAN THE CURRENT LINE NUMBER THEN ADVANCE CURRENT LINE TO N. OTHERWISE DO NOTHING.

14) 'V' WHERE 'V' IS THE SMALL 'V'. MEANS TYPE THE ENTIRE CURRENT LINE ON THE CONSOLE. THE PURPOSE IS TO VERIFY CURRENT CONTENTS OF A LINE.

SEVERAL CHARACTERS TYPE DIFFERENTLY ON THE 1052 WITH THE ICIFIX PROGRAM THAN THEY DO WITH LSPRINT ON THE SN CHAIN. FIRST THE POUND SIGN, WHICH IS A MINUS OVERPRINTED ON AN 'L' ON THE PRINTER, IS THE NUMBER SIGN ON THE 1052. THE NUMBER SIGN IS USED EVERYWHERE IN THE SYSTEM AS THE INTERNAL CODE FOR THE POUND SIGN. THE LEFT AND RIGHT BRACKETS ARE PRINTED BY ICIFIX AS THE 'SMALLER THAN' AND 'GREATER THAN' SIGNS RESPECTIVELY. THE PREFIX, OR PL/1 'OR' SYMBOL IS THE NULL CHARACTER. IT IS PRINTED THE SAME WAY ON THE 1052 AS THE PRINTER. THE 1052 (AS OPPOSED TO ICIFIX) PRINTS MOST ILLEGAL CHARACTERS AS A QUESTION MARK. LSPLINT USES AN H OVERPRINTED ON AN I.

ICIFIX OVERALL OPERATION

THE SIMPLEST WAY TO USE UNITS FOR ICIFIX, IN ORDER TO KEEP UNIT USAGE FOR LATER PROGRAMS IN THE 180-182 GROOVE IS TO PUT THE INPUT TAPE FOR ICIFIX ON UNIT 182 BEFORE RUNNING. THIS INVOLVES AT MOST ONE REMOVAL AND ONE MOUNTING. THE NEW TAPE WILL THEN BE ON 180 READY FOR IMMEDIATE USE BY ICISCAN AFTER THE FIX.

DUE TO THE WASTE OF COMPUTER TIME INVOLVED WITH ICIFIX USE, ONLY THE FOLLOWING KINDS OF FIXES SHOULD, IN GENERAL, BE DONE ..

- 1) DATE WRONG OVER A PERIOD OF SEVERAL DAYS (USUALLY EITHER A YEAR OR A MONTH WRONG).
- 2) SEASON CHANGES NOT WORKING.
- 3) SECTIONS WHOSE ERROR CAUSES A LARGE NUMBER OF SUBSEQUENT LADDER FAILURES, SAY 20.

TO SAVE COMPUTER TIME, BE SURE TO PLAN AHEAD, LISTING SPECIFIC CORRECTIONS, SEARCH CHARS, IF ANY, AND LINE NUMBERS, AND PUTTING

MEMBER NAME DOCFIX

MARKERS IN THE PAGES OF THE DATA LISTING WHERE ERRORS ARE TO BE CORRECTED. REMEMBER THAT ICIFIX CORRECTIONS MAY BE ONLY TEMPORARY. ALL MAY BE REDONE AFTER CORRECTIONS IN CORRECTION TEXT HAVE BEEN APPLIED TO THE ORIGINAL UNREVISED BACKUP FILE FROM ICI. ABOUT 2 CORRECTIONS WITH ICIFIX PER YEAR OF DATA SUFFICED QUITE WELL FOR BATCH NO. 1.

IT IS NOT DESIRABLE TO DELETE THE CORRECTION TEXT, JUST GET AROUND IT WITH ICISCAN SOMEHOW. WE MAY WANT TO HAVE CORRECTION TEXT CONVENIENTLY AVAILABLE ASSOCIATED WITH ITS REVISED DATA TEXT AT SOME POINT. DELETE THE CORRECTION TEXT IF NECESSARY, THOUGH. IF YOU MUST MESS WITH IT YOU MIGHT AS WELL DELETE IT ALL.

YOU MAY WANT TO PRINT THE CORRECTIONS AND STICK THIS IN THE LAST FULL LISTING OF DATA FOR REFERENCE.

WHEN ICIFIX STARTS IT DISPLAYS THE FOLLOWING MESSAGE (THE STANDARD MESSAGE) ON THE CONSOLE ..

N '17C'

WHERE 'N' IS THE LINE NUMBER OF THE CURRENT LINE (ALWAYS LINE 1 AT THE START), AND '17C' REPRESENTS A CHARACTER STRING CONSISTING OF THE FIRST 17 CHARS OF LINE N.

THIS STANDARD MESSAGE IS THE RESPONSE, EXCEPT FOR ERRORS TO EVERY COMMAND NOT RESULTING IN A SEARCH. THE STANDARD MESSAGE IS ALSO GIVEN AFTER EACH DISPLAYED ERROR MESSAGE.

THE OTHER NON-ERROR MESSAGE IS THE SEARCH MESSAGE, WHICH IS IDENTICAL TO THE STANDARD MESSAGE EXCEPT THAT ITS PORTION IS USUALLY NOT 17 CHARS LONG, AND THERE IS A CAPITAL 'S' AT THE END OF THE MESSAGE, IN ORDER TO VERIFY THAT IT IS INDEED THE SUCCESSFUL SEARCH MESSAGE. THE LAST CHAR OF A SUCCESSFUL SEARCH MESSAGE IS THE SEARCH CHAR ITSELF. IF A SEARCH IS UNSUCCESSFUL THEN THE STANDARD MESSAGE IS GIVEN, EXCEPT IN THE EVENT THAT THE SEARCH GOES TO THE END OF THE FILE, IN WHICH CASE NO INDICATION IS GIVEN.

THE STANDARD SEQUENCE FOR CORRECTION BY REPLACEMENT IS AS FOLLOWS ..

- 1) GO TO THE LINE INVOLVED WITH AN 'NG' COMMAND.
- 2) IF YOU HAVE DOUBTS, THEN VERIFY THE LINE WITH THE 'V' COMMAND, ALTHOUGH THIS SHOULDN'T BE NECESSARY SINCE YOU SHOULD HAVE THE LISTING TO REFER TO DURING THE SESSION.
- 3) LOCATE EITHER AT OR SHORTLY BEFORE THE CHAR(S) TO BE REPLACED. IF THE CHARS ARE NEAR THE BEGINNING OF THE LINE THEN YOU ARE ALREADY LOCATED THERE SINCE A REPLACE COMMAND NOT IMMEDIATELY FOLLOWING A SEARCH-TYPE COMMAND (IMMEDIATELY) WILL START REPLACING AT THE BEGINNING OF THE LINE.
- 4) REPLACE THE ERRONEOUS CHARS WITH NEW ONES. IF THE CHARS ARE SIMPLY TO BE DELETED THEN TYPE THE STRAIGHT UP AND DOWN CHAR ABOVE THE COMMA KEY. THIS IS CALLED THE NULL CHAR, OR PREFIX, OR PL/1 'OR' SYMBOL. IT WILL TAKE UP SPACE IN THE INPUT TO ICISCAN, BUT ICISCAN WILL DELETE IT VERY QUICKLY, AND IT WILL NOT BE PART OF THE LOGICAL TEXT.
- 5) YOU MAY WANT TO VERIFY THE CHANGE.

ICIFIX ERROR MESSAGES

ICIFIX HAS 4 STANDARD ERROR MESSAGES WHICH ARE DISPLAYED ON THE 1052 ..

'NO COMMAND' THE LAST RESPONSE TYPED IN DID NOT HAVE ANY NONBLANK CHARS IN IT.

'NO CENT SIGN' THE RESPONSE DID NOT HAVE A CENT SIGN, AND IT WAS NOT ONE OF THE LEGAL COMMANDS NOT CONTAINING A CENT SIGN.

MEMBER NAME DOCFIX

'BAD TYPIST'S ENTRY' AN ASTERISK IN COLUMN 1 OF A LINE WAS FOLLOWED BY A CAPITAL LETTER, BUT EITHER THE LETTER WAS NOT FOLLOWED BY 1 OR MORE DECIMAL DIGITS OR ELSE THERE WERE 1 OR MORE DIGITS BUT THEY WERE NOT FOLLOWED BY AND IMMEDIATELY TERMINATED BY A BLANK. THIS MESSAGE IS DISPLAYED ONLY IN THE 'CHECK' MODE. WHEN THE PROGRAM BEGINS EXECUTION IT IS IN THIS MODE.

'TYPIST'S ENTRY OUT OF ORDER X Y' THE LAST ENTIRELY LEGITIMATE TYPIST ENTRY ENCOUNTERED BY ICISCAN IN CHECK MODE DID NOT HAVE A NUMBER 1 LESS THAN THE VALUE OF THE CURRENT LEGITIMATE PAGE ENTRY. THE NUMBERS, X AND Y, ARE THE PREVIOUS AND CURRENT PAGE NUMBERS RESPECTIVELY.

ICIFIX OPERATES WITH STRINGRANGE AND SUBSCRIPTRANGE ENABLED, AND HAS 'PUT DATA' TYPE SNAP ON CONDITIONS FOR THESE ERRORS.

MEMBER NAME DOCFRONT

*** ICIFRONT AND SLASH **

ICIFRONT IS AN APPENDAGE TO THE DATA ENTRY SYSTEM. ICIFRONT'S MAIN PURPOSE IS TO PERFORM CORRECTIONS SPECIFIED EITHER BY THE CHINA DATA CORRECTION SYSTEM SPECIFICATIONS ARE DESCRIBED IN 'CORRECTION INSTRUCTIONS FOR THE LONDON STAGE PROJECT'.

THE DIFFERENCES BETWEEN THESE INSTRUCTIONS AND THOSE FOR CARD INPUT ARE DESCRIBED HERE.

THE MAIN PROBLEM WITH CARDS IS THAT KEYPUNCHES WITH LOWER CASE CAPABILITIES ARE NOT AVAILABLE TO US. TO REMEDY THIS THE FOLLOWING RULE IS USED ..

ANY CHARACTER THAT IS TO BE LEFT UNALTERED IS PRECEDED BY THE SLASH CHARACTER .. WHENEVER THE SLASH IS PRESENT THEN THE CHARACTER FOLLOWING IT (EVEN ANOTHER SLASH) WILL BE LEFT EXACTLY AS IT IS, AND THE SLASH WILL BE DELETED. TO GET ONE SINGLE SLASH IN THE OUTPUT USE TWO CONSECUTIVE SLASHES. ALL LETTERS WILL BE TRANSLATED TO LOWER CASE UNLESS THEY ARE PRECEDED BY A SLASH. IN THIS CASE THE SLASH WILL BE REMOVED AND THE LETTER WILL NOT BE ALTERED.

THIS SLASH PROCESSING WILL BE DONE BY A PROGRAM CALLED 'SLASH'. SLASH'S INPUT FILE IS SYSIN. THE OUTPUT FILE IS 'CRCT'. SLASH HAS 1 OPTION, OPTION 1. IF OPTION 1 IS SPECIFIED THEN THE OUTPUT WILL BE LISTED ON SYSPRINT IN ADDITION TO GOING TO THE FILE CRCT.

THE SYSIN FILE IS A STREAM FILE. THE FIRST 80 BYTES MUST BE BINARY DIGITS, 0'S EXCEPT FOR POSSIBLY OPTION NO. 1. THE 81ST CHAR MUST BE A '*' STARTING THE FIRST CORRECTION STATEMENT. THE DATA MUST BE FOLLOWED BY AT LEAST 80 BLANKS (ONE CARD) AT THE END OF THE FILE. THERE IS NO PROCEDURE FOR SLASH.

ICIFRONT'S PROCEDURE IS CALLED LSPFRONT. ITS DEFAULTS ARE ..
DATUNIT=181, DATVOL=LSP025, DATDSN=LSPDT, DATSEQ=1,
CORUNIT=182, CORVOL=LSP026, CORDSN=LSPCR, CORSEQ=1,
OUTUNIT=180, OUTVOL=LSP027, OUTDSN=LSPCL, OUTSEQ=1

THE PARAMETERS USUALLY REQUIRED ON THE EXEC CARD ARE ..
DATVOL, CORVOL, & OUTVOL.

IT IS SUGGESTED THAT, IF ICIFRONT IS TO BE USED, IT BE TRIED FIRST IN THE FIRST CYCLE AFTER THE INITIAL PROCESSING STAGE.

MEMBER NAME DOCISCAN

GENERAL OVERVIEW OF ICISCAN

ICISCAN'S GENERAL PURPOSE IS TWOFOLD .. 1) TO SERVE AS A FRONT END FOR THE ODDITIES OF THE REMOTE EDITOR / CHINA DATA / OPTICAL SCANNER DATA PREPARATION SYSTEM. 2) TO DIVIDE THE TEXT INTO ITS 3 KINDS OF COMPONENTS .. STRUCTURED SECTIONS, EXTRANEous TEXT, AND INDEX ENTRIES IN EXTRANEous TEXT. COMMENT SECTIONS ARE CONSIDERED EXTRANEous TEXT, BUT WITH THE FRONT AND REAR DELIMITERS REMOVED. ICISCAN ALSO CHECKS FOR PAGE ENTRIES - BOTH DECIMAL AND ROMAN, BUT THESE ARE NOT SUPPOSED TO BE IN THE DATA AT PRESENT. THEY ARE INTENDED FOR FUTURE USE IN THE LONDON STAGE INDEX FOR INTRODUCTIONS.

ICISCAN ALSO COLLECTS STATISTICAL DATA FOR GENERAL REFERENCE AND SYSTEM OPTIMIZATION PURPOSES AS WELL AS FOR CALCULATING PAYMENTS TO THE TYPING AND SCANNING COMPANIES. ICISCAN OPTIONALLY PRODUCES EXTENSIVE PRINTOUTS OF PROCESSING TO FACILITATE LATER CORRECTION OF INPUT TEXT BY A HUMAN.

ICISCAN HAS AN OPTION CHAIN IN COLUMNS 17-23. OPTIONS ON A CARD ARE IN EFFECT UNTIL THE LINE WITH THE LINE NUMBERS IN THE CHAIN IS READ IN. AT THAT TIME THE PROGRAM, REALIZING THAT NEW OPTIONS ARE TO BE APPLIED, READS IN THE NEXT OPTION CARD FROM THE SYSIN FILE. THESE OPTIONS ARE THEN IN EFFECT AS THE LINE READIN PROCESSING IS CARRIED OUT. TO MAKE OPTIONS ON A CARD REMAIN IN EFFECT UNTIL THE END OF THE PROGRAM, PUT 0'S IN COLS 17-23, SINCE LINE 0 DOES NOT EXIST AND WILL THEREFORE NEVER BE READ IN.

IN ADDITION TO OPTIONS AND THE LINE NUMBER FOR THE NEXT SET OF OPTIONS, IF ANY, EACH ICISCAN OPTION CARD HAS 2 OTHER THINGS ON IT .. 1) A LIST OF THE SMALL LETTERS THAT ARE ACCEPTABLE AS SECTION TYPE LETTERS, LOCATED IN COLS 24-49, AND 2) A LIST OF THE SECTION TYPES THAT ARE TO BE PUT OUT BY ICISCAN, IN COLS 51-76. BOTH LISTS OF SMALL LETTERS ARE REQUIRED TO START IN THE FIRST COLUMN OF THEIR RESPECTIVE FIELDS AND TO HAVE AT LEAST THE 'P' IN THEM. THE LIST OF LEGAL SECTION TYPES, IN FACT, SHOULD ALWAYS BE THE SAME. AT PRESENT THIS MEANS THE LETTERS, 'PABCDEMOSTUI'.

AT THE HEAD OF THE OPTION CHAIN IS A SPECIAL OPTION CARD CALLED THE STARTER CARD. IT IS MUCH LIKE OTHER OPTION CARDS, BUT ITS PURPOSE IS ONLY TO START THE PROGRAM WITH THE RIGHT INPUT FILE, CLIN OR IN. WHEN ICISCAN STARTS, IT FIRST READS IN THE STARTER CARD AND PROCESSES IT JUST LIKE ANY OTHER OPTION CARD. THIS HAPPENS BEFORE ANY OTHER INPUT. THE OPTION CARD SHOULD HAVE A 1 IN COLUMN 15, THE APPROPRIATE OPTION FOR CLIN OR IN IN COLUMN 7, AND 0000001 IN COLS 17-23. IT SHOULD ALSO HAVE A NONBLANK CHAR IN COL 24, AND IN COL 51. IT MAY AS WELL HAVE THE FULL SET OF SECTYPE LETTERS IN THESE LAST TWO FIELDS.

THE FOLLOWING OPTIONS ARE RECOMMENDED FOR A LIST/LOG OF ICIFIXED SCANNER FORMAT INPUT .. 3, 4, 11, 12, 16.

THE OPTION CARDS FOR THIS RUN WOULD BE

'001100000110011000001PABCDEMOSTUI	PABDEMOSTUI' AND
'001100000110001000001PABCDEMOSTUI	PABDEMOSTUI'

(THE LETTERS BEING SMALL LETTERS PUNCHED BY USE OF THE MULTIPUNCH BUTTON).

FOR RERUNS, EITHER FROM CLEAN INPUT OR SCANNER FORMAT INPUT, THE OPTIONS WILL VARY.

1 GENERAL LOGIC OVERVIEW OF ICISCAN

THERE ARE 2 MUTUALLY EXCLUSIVE PRIME INPUT FILES, CLIN & IN. IN'S INPUT IS IN THE FORM OF 80 BYTE LOGICAL RECORDS. EACH INPUT BLK (OR LINE) IS NOMINALLY 75 BYTES OF TYPING FOLLOWED BY 5 BYTES OF BLANKS. A NUMBER OF THINGS MAY AFFECT THIS, HOWEVER. THE PROCEDURES APPLIED TO EACH INPUT LINE ARE DESCRIBED IN 'ORDER OF LINE

MEMBER NAME DOCISCAN
READIN PROCESSING'.

CLIN'S LINE IS OF VARIABLE LENGTH AND IS IN A STREAM FILE. EACH LINE STARTS WITH A 20 BYTE HEADER OF CONTROL INFORMATION. THE FORMAT IS DOCUMENTED IN 'STANDARD DATA FILES'. THE LAST LINE OF A FILE IS INDICATED BY A NEGATIVE LINE NUMBER WITHIN CURRENT PAGE. THIS LAST LINE CONTAINS NO DATA, ALTHOUGH ITS DATA PORTION MAY BE OF NONZERO LENGTH.

SINCE THE INPUT LINE IS OFTEN ONLY PART OF A SECTION, ICISCAN CONSISTS ESSENTIALLY OF 2 'COROUTINES', THE INPUT COROUTINE AND THE PROCESSING & OUTPUT COURoutine. EXCEPT FOR PRIMING BY THE INPUT ROUTINE, THE OUTPUT AND PROCESSING ROUTINE IS THE DOMINANT ONE, INVOKING THE LINE READIN ROUTINE WHENEVER THERE ARE NO MORE DELIMITERS LEFT IN THE CURRENT BUFFER.

PURE FILE OUTPUT IS U-FORMAT BLKS UP TO 3625 BYTES IN LENGTH, EACH BLK BEING ONE SECTION. AT PRESENT, INDEX ENTRIES ARE NOT PUT OUT, ALTHOUGH THEY MAY BE OPTIONALLY PRINTED, SINCE THE FULL INFORMATION NEEDED TO PROCESS THEM HAS NOT YET BEEN EDITED INTO THE TEXT. CLOUT FILE OUTPUT IS WRITTEN AFTER ALL LINE READIN CHANGES HAVE BEEN MADE TO THE INPUT LINE. IT IS POSSIBLE TO CREATE A BACKUP OF A CLEAN FILE BY SPECIFYING OPTIONS 7 & 14 SIMULTANEOUSLY.

THE PROCESSING ROUTINE CONCERNS ITSELF PRIMARILY WITH MODES AND DELIMITERS. AT THE BEGINNING OF A RUN, TEXT STARTS IN STRUCTURED MODE, AND ALL TEXT FROM THE BEGINNING OF THE DATA UNTIL THE FIRST DELIMITER IS STRUCTURED TEXT. DEPENDING ON THE DELIMITER THE NEXT PIECE OF TEXT (BETWEEN THE DELIMITER AND THE DELIMITER AFTER IT) WILL BE IN SOME PARTICULAR MODE, FOR EXAMPLE 'STRUCTURED', OR 'EXTRANEous DUE TO LEFT PAREN'. IN THE GENERAL CASE THERE ARE TWO FACTORS DETERMINING A NEW MODE. 1) THE PREVIOUS MODE. 2) THE DELIMITER DEFINING THE START OF THE NEW TEXT. AS A SPECIAL CASE, IF THE DELIMITER IS A '*' AND IT IS IMMEDIATELY FOLLOWED IN THE CLEANED LOGICAL TEXT BY A SMALL 'C' THEN THE NEW MODE WILL BE 'COMMENT SECTION'. THERE ARE 10 MODES, INDICATED BY VALUES RANGING FROM -5 TO +4 IN THE VARIABLE, 'MODE'.

THE 10 MODES ARE NAMED IN THE LISTING BESIDE THE ARRAY, 'NEWMODE', WHICH DEFINES THE NEW MODE OF FOLLOWING TEXT (EXCEPT FOR COMMENT SECTIONS AS NOTED ABOVE) BASED UPON THE PREVIOUS MODE AND THE DELIMITER ENDING THE PREVIOUS PIECE OF TEXT.

1

ORDER OF LINE READIN PROCESSING FOR ICISCAN

- 1) READ LINE. IF CLEANED INPUT (OPTION 7) THEN GO TO 4.
- 2) IF BLANK LINE THEN GO TO 1, NOT COUNTING IT AS A LINE.
- 3) COUNT IT AS A LINE.
- 4) IF LINE NUMBER IS SAME AS ON CURRENT OPTION CARD THEN READ IN A NEW OPTION CARD AND PROCESS IT, DOING AN IMMEDIATE STOP IF OPTION NO. 1 IS SPECIFIED.
- 5) IF OPTION 15, THE LINE SKIP OPTION, THEN GO TO 1.
- 6) IF OPTION 7, THE CLEANED INPUT OPTION THEN GO TO LINE 22.
- 7) COUNT AS A LINE ON CURRENT PAGE.
- 8) IF ILLEGAL CHAR CHECK OPTION NO. 11 THEN DO THE CHECK, CONVERTING EACH ILLEGAL CHAR IN LINE TO A QUESTION MARK.
- 9) IF OPTION 3 THEN LIST LINE AS IT PRESENTLY STANDS.
- 10) DELETE ANY NULL CHARS IN LINE, KEEPING COUNT.
- 11) CHECK FOR REGULAR TYPIST ENTRY (VIA 'AT' SIGN-CAPITOL LETTER) & PROCESS IT IF PRESENT. POSSIBLY REENTERING REGULAR TEXT MODE FROM CORRECTION TEXT MODE.
- 12) GO TO 1 IF IN CORRECTION TEXT MODE.
- 13) TAKE CARE OF TRIPLE 'AT'S.
- 14) IF LINE STARTS WITH 2 'AT'S THEN CHANGE THEM TO 2 SPACES.
- 15) IF LINE STARTS WITH 1 'AT' THEN CHANGE IT TO A SPACE.

MEMBER NAME DOCISCAN

- 16) IF LINE STARTS WITH '***' THEN ENTER CORRECTION TEXT MODE AND GO TO 1 AGAIN.
- 17) CONVERT PAIRS OF SINGLE QUOTES TO A DOUBLE QUOTE CHAR, KEEPING COUNT AS WITH NULL CHARS.
- 18) CHECK LAST 5 CHARS OF LINE FOR NONBLANK CHARS AND KEEP ANY FOUND THERE.
- 19) CHOP OFF TRAILING BLANKS AND TYPIST ENTRY, IF ANY, FROM LINE.
- 20) PROCESS DOUBLE 'AT'S.
- 21) PROCESS SINGLE 'AT'S.
- 22) IF OPTION 14 THEN PUT OUT LINE TO FILE CLOUT.
- 22A) COUNT UPPER CASE CHARS REMAINING IN LINE (FOR CLEANED CAP COUNT).
- 23) COUNT TOTAL CHARS REMAINING IN LINE (FOR TOTAL CLEANED CHAR COUNT).
- 24) APPEND TO WORK BUFFER.

NOTES ..

- 1) ILLEGAL SECTYPE CHARACTERS THAT ARE CAPITAL LETTERS ARE CHANGED TO SMALL LETTERS . THE RESULTING SECTIONS ARE THEN TREATED LIKE OTHER SECTIONS. IF THE SECTION IS OF A LEGAL TYPE THEN IT WILL BE PUT OUT.
- 2) AS NOTED IN LINE READIN PROCESS NO. 18, NONBLANK CHARACTERS IN FOLLOWING THESE NONBLANK CHARACTERS ARE NOT RETAINED.