CORRECTION NO. 47  DATE NOVEMBER 14, 1960
CARC

1. ELIMINATES CERTAIN TIMING ERRORS ON THE 7090.
   IGNORES SYMBOL TABLE CARDS (PREVIA 6) AND LEAVES PARAMETER
   INFORMATION FOR THE TD 170 ROUTINES IN LOCATION 143 OCTAL.

2. SYMBOLS PRECEDING THE COMMON FIELD DELINEATE THE FOLLOWING:
   ENTRY TO A BLOCK OF CODE;
   EXIT FROM A BLOCK OF CODE;
   TRANSFER TO A SUBROUTINE;
   RETURN TO THE LOCATION AFTER THE 10A.

3. THE FOLLOWING THREE INSTRUCTIONS ARE READ INTO U 2 + 2:
   LSTART, LSTART

4. RESET INDICATORS;
   INITIALIZE MACHINE CORE SIZE;
   ADDMSK4 USED AS ERASABLE CELL FOR CBR.

5. REENTRY IF SUBROUTINES MISSING AFTER TRANSFER CARD;
   OVERLAP 
   REENTRY TO GET NEXT CARD.

6. READ NEXT CARDS;
   READ 9L;
   DELAY UNTIL 9L IS IN AND READ 9R;
   CARD9L GET 9L (PREFIX, WORD COUNT, LOAD ADDRESS);
   LOAD CARD WORD COUNT.
**BSS LOADER FOR THE TCA775**

- **LOCARD**: SET WORD COUNT OF I/O COMMAND.
- **ST:STD**: IS THIS DATA, TRANSFER, OR PROGRAM CARD?
- **SORTED:1,31**: NO, IS CARD CONTROL CARD?
- **CONCORD:1,32**: MUST BE SELF LOADERS, READ BL INTO Z.
- **LOWCTR**: IMITATE MACHINE LOAD CHANNEL FROM ZEROS.
- **CARDB**: TRANSFER TO 1 (ALSO USED AS 1ST COMMAND).

**CARDB IS CONTROL CARD.**

- **BUMP LOWER STORAGE COUNTER**
- **LOWCTR**: BY LENGTH OF BLOCK RESERVED (9L ADDRESS).
- **ADDMSK**: DELAY UNTIL 9R READ IN.
- **LCHA**: SET COMMON ORIGIN TO.
- **SHIFT**: ADDRESS OF CARD.
- **TST:STA**: INDICATOR ON.
- **CARD:OFF**: INDICATOR OFF, GET NEXT CARD.

**DETERMINE TYPE OF CARD TO 1ST 9L PREFIX.**

- **SORTED:ARS**: GET PREFIX OF CARD.
- **CONCORD:PN**: ADDRESS FIELD USED AS COMMON DECREMENT.
- **LCHA**: TRANSFER IF NOT INSTRUCTION OR DATA CARD.

**CARD IS DATA OR TRANSFER CARD (PREFIX V, 1, 2, 3).**

- **CAL**: GET 9L.
- **TZE**: IF BLANK CARD,
- **SEXX:SH**: THIS IS A RELOCATABLE BINER CARD.
- **LOAD**: YES, BUT MAY BE A TRANSFER CARD OR.
- **DATA**: READ RELOCATION BINARY (PREFIX 2 OR 3).
- **RELOC**: LOAD ADDRESS OF I/O COMMAND.
- **LOAD**: IF PREFIX IS 0 OR 1 OR READ 7L AND UN.
- **IF**: IF PREFIX IS 2 OR 3.

**REENTRY TO RELOCATE NEXT DATA WORDS.**

- **RELUX**: GET NEXT RELOCATION BINARY.
- **TST**: DECIMAL OF WORD.
- **ARCS**: RELOR: YES, GET DECREMENT PORTION OF WORD.
- **ARG**: RELUX: 0.
- **RELUX**: RELUX: 1.
- **ST**: SRELOCATE DECREMENT.
- **LBA**: INSERT RELOCATED DECREMENT.
- **LBA**: GET NEXT RELOCATION BIT.
- **LBA**: YES, GET ADDRESS PORTION OF WORD.
CLOSED SUBROUTINE TO RELOCATE DATA.

ENTRY POINT FOR DATA.
ADDRA SAVE LOCATION TO BE RELOCATED.
RELLOC 
* GET NEXT RELOCATION BIT 
1-2 
TIRE LOCATION DIRECTLY RELOCATABLE. 
1 SET NOT SET COMPLEMENT RELOCATABLE FLAG.
2 SET DATA FLAG.
ADRES GET LOCATION TO BE RELOCATED.

ENTRY POINT FOR LOAD OR TRANSFER ADDRESS.
ADDRA COMPUTE DIFFERENCE BETWEEN LOCATION AND
PROGBK OBJECT PROGRAM BREAK.
1-2 
SET MATCH THIS DATA.
RELLOC1 NOT THIS IS TRANSFER OR LOAD ADDRESS.
RELLOC1 YES, IS LOCATION ABOVE PROGRAM BREAK.
1 NO, IS IT COMPLEMENT RELOCATABLE.
RELLOC1 NO, GO RELocate UPWARDS.

RELOCATE COMMON STORAGE DOWNWARD.
ADDRES GET LOCATION TO BE RELOCATED.
REORG ADD COMMON REASIGNMENT.
1-2 RETURN TO CALLER.

REENTRY FOR LOCATIONS ABOVE PROGRAM BREAK.
1-4 IS IT COMPLEMENT RELOCATABLE.
1-4 NO GO RELocate DOWNWARD.

RELOCATE PROGRAM DATA UPWARD.
LENGTH ADD RELOCATED PROGRAM BREAK TO DIFFERENCE.
1-2 BETWEEN LOCATION AND OBJECT PROGRAM BREAK.

CLOSED SUBROUTINE TO GET NEXT RELOCATION BIT.
CAROL GET CURRENT RELOCATION BIT.
1-2 SHIFIT IN NEXT BIT AND
SARA SAVE RESIDUES.
1-4 RETURN TO CALLER.

CLOSED SUBROUTINE TO COMPUTE CHECKSUM.

CHECKSUM INITIALIZE ADDRESS FOR CHECKSUM.
CARDPL GET NEXT CARD.
1-2 DELAY UNTIL COMPLETE CARD IS READ.
IS THE I/O CHECK INDICATOR ON.
YES.
CARDPL TRANSFER IF CARD IS NOT RELOCATABLE WITH
CHECKSUM (PREFIX 0 OR 01).
NO CHECK TRANSFER IF CARD IS NOT RELOCATABLE AND
CHECKSUM IS TO BE IGNORED (PREFIX 5 OR 1).
NO CHECK TRANSFER IF CARD IS RELOCATABLE AND THE
...
CHECKSUM IS TO BE IGNORED (PREFIX 3).
CARD IS RELUCTANT WITH CHECKSUM.
ADD IN BL AND OR.
CHECKSUM CARD.
RELOAD WORD COUNT.
DO CHECKSUMS AGREE.
NO; IS 9R ZERO.
*YES, 9R AGREES OR IS ZERO.
*NO; PAUSE AND THEN ACCEPT.

** EOFRD
*AS THE I/O CHECK CAUSED BY AN EOF.
NO LOADING CAN CONTINUE. (ALSO USED
FOR SAVING CURRENT PROGRAM ORGAN.
*YES; PAUSE AND THEN PROCEED.

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