

Burroughs Corporation



COMPUTER SYSTEMS GROUP
SANTA BARBARA PLANT

P.S. 2228 3451

B1800/B1700 CREATE/TABLE

PRODUCT SPECIFICATION

REV LTR	REVISION ISSUE DATE	APPROVED BY	REVISIONS
A	10/19/79	<i>J. Hale</i>	P.S. 2212 5371 for CREATE/TABLE is an invalid number. The correct number for CREATE/TABLE should be P.S. 2228 3451. This Product Specification replaces SORT COLLATE (P.S. 2212 5371).

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SECTION I

**INTRODUCTION TO
CREATE/TABLE**

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INTRODUCTION TO CREATE/TABLE

FUNCTION

CREATE/TAELE generates a translation table used by sort intrinsics and application programs to perform a translation from one character set to another. The translation table, in the form of a disk file, translates forward and backward from ASCII 8-bit, ASCII 7-bit, BCL, BCL 8-bit, and B500 6-bit. Additionally, any other type of translation table may be specified by the user via the soft input format.

FEATURES

TRANSLATION TABLE

The translation table file contains three records: a translate header, a translation forward table, and a translation backward table. Record sizes vary according to the character set that generates the table. Table 1.1 lists the character sets and the record sizes for each.

TABLE 1.1 CHARACTER SETS AND RECORD SIZES

Character Set	Default Bits Per Record
ASCII 8-bit	2048
ASCII 7-bit	1792
BCL	1536
BCL 8-bit	2048
B500	2048
EBCDIC	2048
Soft input	2048

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TRANSLATE HEADER FORMAT

The translate header describes the translation forward and backward tables. Eight fields of information are contained in the beginning of the header:

- a 24-bit level identifier which changes for each release. It consists of the numbered day and year of the first release of that level, with the last two digits of the year listed first. For example, 79037 represents the year 1979 and the 37th day of the year.
- an 8-bit translation forward entry size, giving the size of each entry of the second record.
- an 8-bit translation backward entry size, giving the size of each entry of the third record.
- a 24-bit translation forward table size for the second record.
- a 24-bit translation backward table size for the third record.
- a 4-character entry containing the value "TRAN".
- a 24-bit field containing the filler character (in hex right-justified) associated with the second record; 2402-EBCDIC.
- a 24-bit field containing the filler character (in hex right-justified) associated with the third record; 2102-8CL, 2402-8CL 8-bit, 2202-ASCII 7-bit, and 2A02-ASCII 8-bit.

SECTION II
OPERATING PROCEDURES

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OPERATING PROCEDURES

EXECUTION

Program execution can be achieved via card deck or disk file. Figure 2.1 illustrates a sample card deck with control and data cards that produces an ASCII 8-bit translation table. Figure 2.2 shows program execution via disk file including the necessary file-equating statement. Presumably, all data would appear within the disk file.

```

      /-----
      | ?END
    /-----
    | $ASC8
  /-----
  | ?DATA CARDS
/-----
| ?EX CREATE/TABLE

```

Figure 2.1 Sample Card Deck Execution

```

      /-----
      | ?END
    /-----
    | ?FI CARDS NAME <file name> DISK
  /-----
  | ?EX CREATE/TABLE

```

Figure 2.2 Sample Disk File Execution

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PROGRAM INPUT

The variety of available options allows a user to input a minimum of the required information to indicate the desired translation table (see Figure 2.1), or by using the soft input facility, to input all of the information required to create an entirely new table. Figure 2.3 depicts a sample card deck utilizing all of the available options. The soft input cards provide the translation information for a table that translates from lowercase letters to uppercase letters. Note the use of the IDNT statement to name the table MYTEST.

Program input takes the form of statements entered in conjunction with the control cards. The statements are in free-field format, with any columns after column 72 unused by the program and consequently available for comments.

```

/-----
  I?END
/-----
  I"00-80 C1-C9 8A-90 D1-D9 9A-A1 E2-E9 AA-FF"
/-----
  I 8WRD
/-----
  I "00-80 C1-C9 8A-90 D1-D9 9A-A1 E2-E9 AA-FF"
/-----
  I FRWD
/-----
  I $SOFT
/-----
  I $IDNT MYTEST
/-----
  I ?DATA CARDS
/-----
  I ?EX CREATE/TABLE

```

Figure 2.3 Sample Deck Using All Options

SECTION III
OPTION SUMMARY

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OPTION CROSS-REFERENCE TABLE

Mnemonic -----	Option -----	Function -----	Page -----
\$IDNT	Identification Statement	Names table	3-4
\$ASC8	ASCII 8-bit	Produces ASCII 8-bit table	3-3
\$ASC7	ASCII 7-bit	Produces ASCII 7-bit table	3-3
\$BCL	BCL	Produces BCL table	3-3
\$BCL	BCL 8-bit	Produces BCL 8-bit table	3-3
\$B500	B500	Produces B500 6-bit table	3-3
\$SOFT	Soft Input	Allows user to specify table information	3-4

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OPTION LISTING (in alphabetical order)

ASCII 7-bit

-----> \$ASC7 -----> #

This option produces a translation table for the ASCII 7-bit character set. Unless the IDNT statement is used, the name of this table is "TRANSLATE".

ASCII 8-bit

-----> \$ASC8 -----> #

This option produces a translation table for the ASCII 8-bit character set. Unless the IDNT statement is used, the name of this table is "TRANSLATE".

BCL

-----> \$BCL -----> #

This option produces a translation table for the BCL character set. Unless the IDNT statement is used, the name of this table is "TRANSLATE".

BCL 8-bit

-----> \$BCL8 -----> #

This option produces a translation table for the BCL 8-bit character set. Unless the "IDNT" statement is used, the name of this table is "TRANSLATE".

B500

-----> \$B500 -----> #

This option produces a translation table for the B500 6-bit character set. Unless the "IDNT" statement is used, the name of this table is "TRANSLATE".

APPENDIX A

ERROR MESSAGES

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ERROR MESSAGES

The following error messages are listed alphabetically with their descriptions.

"CONTROL INFORMATION NOT FULLY CONTAINED WITHIN 72 COLUMNS"

Any information entered in column 72 and beyond was not recognized by the program.

"ERROR IN HEX-CONVERSION"

The input was entered incorrectly, perhaps in decimal form, and was not able to be processed.

"INPUT FOR TRANSLATE TABLES NOT PROVIDED. CANNOT CONTINUE."

Either no input statement, such as \$ASC8, was provided or the information for the soft input translation table was omitted.

"INVALID CONTROL STATEMENT"

"INVALID FILE NAME"

Ensure that file name in IDNT statement conforms with B1800/B1700 file naming conventions.

"PARAMETER LIST MUST BE ENCLOSED IN QUOTE SIGNS"

Quotation marks were omitted from hexadecimal input.

"SOFT STATEMENT DOES NOT CONTAIN ALL REQUIRED ENTRIES"

Directional indicators FRWD or BWRD were omitted from the soft input, or hexadecimal sequences were missing.

"VALUES ON BOTH SIDES OF HYPHEN ARE EQUAL AND DO NOT DEFINE A SERIES"

APPENDIX B
INTERNAL FILES

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INTERNAL FILES

Internal File Name

Function

REPORTFILE

Stores the printer file for
the FRWD translate table as
it appears in the input.

TRANFILE

A disk file that stores the
translate tables.

CARDS

Stores the input file.

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