

CTSS BULLETIN 80
April 23, 1965

SUBJECT: A New Version of FAP

Purpose

The FAP command has been modified to accept variable length records as input.

The format of error lines printed on the console has been changed to provide shorter lines.

Two new pseudo-operations, NULNK and NOSEQ, are added.

Implementation

The new version is available as command CTEST9. It will replace the current FAP command in the near future. The message of the day and CTEST INFO in the public file will serve as notification.

Modifications

Only the error line format has been changed for fixed (14 word) input records. All other changes are optional or apply to variable length record input only.

1. Error line format.

The identifying information (sequence number or record number) is printed at the left end of an error line. For a sequenced line, columns 73-80 are printed, giving right-adjusted numeric. For a non-sequenced line a 5-digit record number followed by 3 blanks is printed, giving left adjusted numeric.

Trailing blanks in columns 1-72 are then deleted, providing a shorter line where remarks are brief or absent.

2. NOSEQ pseudo operation.

The pseudo operation NOSEQ prevents sequence checking of serialization in columns 73-80; i.e., no "SOURCE ORDER ERROR" diagnostics appear in the offline listing (BCD) file.

The NOSEQ card must appear in the first card group. Listing of the NOSEQ pseudo instruction is controlled by PCC.

3. NOLNK pseudo operation

The pseudo operation NOLNK deletes the standard error procedure of FAP. The linkage director, normally provided for all subprograms, is omitted, and calling sequences produced by the CALL pseudo operation are shortened by two instructions.

The NOLNK card must appear in the first card group. Listing of the NOLNK pseudo instruction is controlled by PCC.

4. Input records.

Variable length records with record marks and fixed length (14 word) records are both acceptable as input and may be mixed freely. Hence an inserted file need not contain the same type record as the main input file.

Fixed length records are simply read in, and assembly continues.

5. Variable length records.

Records may contain tabs, which are interpreted by FAP; a maximum of 72 columns per card is assumed.

A heading line

PREPROCESSOR ERROR LISTING

precedes a list of illegal input cards. When the entire input deck has been processed, a line

END OF PREPROCESSOR LISTING

is printed. The user may then give the QUIT signal to terminate assembly; otherwise assembly continues with each offending card truncated to 72 columns.

For each illegal card, a diagnostic line

RECORD NO. 00000, MORE THAN 12 WORDS

or

RECORD NO. 00000, MORE THAN 72 COLUMNS

precedes a print out of the input record. The "record number" printed for these diagnostics, and for error lines, is a count of all input records. Note that, for mixed input, Record Number N means the Nth input card, not the Nth variable length record.