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Identification

Processing EPL "macros" with EPLMAC
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Purpose

The PL/I language includes in it the ability to expand macros at compile time. Although the EPL subset does not include this ability, developments have shown the need to be able to insert files into input text at compile time, as is presently done on CTSS in FAP and in MAD. Thus the program EPLMAC has been written to answer this need. The format for requests to EPLMAC has been designed to be compatible with the PL/I macro facility, to the greatest extent possible.

EPLMAC is invoked automatically by the "EPL runcom" (see Section BE.1.01) or by the merge editor (see BE.5.02) if the first character of the input file is the percent character. However, it may also be called directly by the user, if desired.

Usage

Executing the command

R EPLMAC -X-

will cause the file NAME EPL to be scanned as described below, creating the output file NAME EPLMAC. All files are ASCII files. The optional argument controls the mode of the created file and the verbosity of on-line printing.

The Optional Argument

The optional argument may be any of "BX", "BT" or "T". If its right-most character is "T", the EPLMAC file created will be in temporary mode, while otherwise it will be in permanent mode. If the second character from the

right is "B", there will be no on-line printed output from the EPLMAC (other than error messages), while otherwise EPLMAC will be verbose.

The "Include" Macro

In an EPL file processed by EPLMAC, the piece of text

```
% include alpha ;
```

will be replaced, in its entirety, by the (CTSS) file ALPHA EPL. Nesting to a depth of nine is permitted. It should be noted that the included text need not be any particular PL/I syntactic unit; It may be a part of an expression, part of a statement, a declaration, a whole procedure, etc. However, both the original file and each included file must be properly balanced with respect to both the comment convention and string quotes. Further, an included file may not appear inside of a comment or in a string.

Scanning Conventions

In this section, the word "space" stands for any combination of the characters space, tab and newline.

Optional spaces may be used after the percent.

The file name is delimited on the left by one or more spaces and on the right by spaces or the semicolon. Lower case letters are mapped into upper case letters. If the programmer uses any ASCII character which does not map directly into the CTSS 6-bit alphabet, unpleasant things will occur.

Further Details

EPLMAC ignores the sequence

```
% ;
```

so this sequence may be used at the beginning of an EPL file to indicate to the EPL runcom that EPLMAC is to be invoked.

EPLMAC scans for comments and strings, so a percent occurring in a comment or within quotes will be ignored. (This is the PL/I convention.) If the end of a file occurs inside of a comment or a string or while processing a macro, EPLMAC will comment on-line but continue operation. At the end of its operation it will then comment further that there was an error, but NAME EPLMAC will have been created. Again, if a requested file is missing, EPLMAC will comment but continue without it. (If the original file NAME EPL is missing, a null output file will be created.) Other file system errors detected will, in general, terminate EPLMAC without creating an output file. In all cases, EPLMAC will terminate by calling CHNCOM.

EPLMAC SAVED may be linked to in T234 CMFL01. New users of EPL will have the link made automatically on their first use, as described in Section BE.1.01 in the paragraph titled "Making the Links".