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## Identification

EPL Compilations on CTSS FIB  
EPLFIB SAVED  
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## Purpose

EPLFIB SAVED is a collection of programs which allows the user to batch-compile his EPL procedures and obtain off-line ASCII listings of the results.

## Introduction

Since execution times for EPL compilations are more likely to be of the order of magnitude of minutes rather than seconds, the interactive properties of CTSS lose their desirability and make absentee-user (FIB) jobs look more attractive. At the same time, the lengthy execution times make it extremely risky to attempt the compilation of more than one or two EPL files per FIB job, given the current time limit of 5 minutes per job. Certain users have worked out the mechanics of chaining from one FIB job to the next, but the process is both tedious and error prone.

A special purpose set of programs has been written which allows the user to compile an indefinite number of EPL programs under FIB (Shift 5), one compilation per FIB job, until a list is exhausted, and request ASCII editor output of any of the resulting files.

The procedure to be described below assumes that the user is compiling his EPL programs using Art Evans' EPL SAVED (BN.3.01) and has in his own directory the links obtained by issuing the command RUNCOM EPLGET. If off-line output is requested, the user must also have the requisite link, ASCII RQUEST, for requesting ASCII output off-line. (BE.5.11)

Acknowledgements go to Don Widrig and Noel Morris for their contributions to the logic of the programs.

## Usage

To obtain deferred EPL compilations on his FIB time quota, the user issues the command

```
R EPLFIB NAME1 NAME2 ...
```

where the NAME<sub>i</sub> are the primary names of the EPL files to be compiled.

The NAMEi are added to a list in a file for later processing; the NAMEi may also be any of the following special arguments:

- '(LIST)' - for subsequent NAMEi in the argument list, after each compilation, a request will be made for off-line ASCII output of the source program (second name EPL), and the resultant SOURCE, MACROS, and EPLBSA files. N.B. If listings are to be requested for all programs compiled from one invocation of EPLFIB, the '(LIST)' argument must occur before any of the file names.
- '(RQAS)' - same as '(LIST)', except request will be made for SOURCE, MACROS, and EPLBSA files only; request for EPL file printing will not be entered.
- '(NLST)' - for subsequent NAMEi, no requests for off-line listings will be entered. This is the normal mode of operation.
- '(FIB)' - request that the command

FIB EPLRUN

be issued for this user after making all entries to the list, after which the command chain is continued. This command is normally issued automatically if the list was empty at the beginning of the EPLFIB command.

- '(NFIB)' - after making all entries in the deferral list, proceed with the user's command chain, if any. This is the normal situation if the list was not originally empty, but would be used if the user wished to issue the following command at some later time:

FIB EPLRUN -LIMIT- -TIME- -DAY-

where LIMIT, TIME, and DAY are as defined in the CTSS Programmer's Guide, section AH.1.03, to postpone the compilations until a specified time. (Note that the optional parameters apply only to the initial FIB job of a deferred series.)

### Method

EPLFIB appends the user's compilation requests to a file named EPL STACK in the user's directory. When the user logs out (and TIME and DAY have been reached, if applicable), his FIB job is logged in, the first entry is removed from EPL STACK, and the EPL compiler is invoked.

After normal termination of the compilation, a "windup" phase is entered which issues the ASCII print request command (if the user desired listings) and a new FIB command, and then logs out.

This process is repeated until EPL STACK is empty, or until one search through EPL STACK reveals no entry for which a corresponding, non-zero-length EPL file exists.

At the successful completion of a chain of FIB jobs, all the text which EPL normally prints on the user's console will have been collected in a 12-bit line-marked file named EPL OUTPUT. The LOGIN-LOGOUT messages and other text will be in \$\$\$FIB OUTPUT, which is the normal "stream-name" for the FIB-user's console.

...001 SAVED will remain in the user's directory, but is generally useless and should probably be deleted.

### Errors

The following diagnostics may appear when using EPLFIB:

Output from the PRNTER command: miscellaneous file system errors;  
correct condition, check contents of EPL STACK and re-try.

blah EPL NOT FOUND, SHALL I SET IT UP ANYWAY,:

The user responds with "yes" to insert compilation request.

'xyzabc' PARAMETER ILLEGAL, IGNORED:

Illegal file name was given in the command, the rest of the command arguments are processed.

EXECUTION OF YOUR JOB DEFERRED UNTIL tttt.t:

This comment is printed by the FIB command, and refers to the restriction that a user must space his FIB jobs at least an hour apart. The user may issue the PRFIB command to determine if any conflicts exist. If more than one instance of the job-name EPLRUN is printed, this is an error; they should all be deleted by successive applications of the DELFIB command. The user must then re-issue the FIB command, either by

FIB EPLRUN -LIMIT- -TIME- -DAY-

or alternatively, by

```
R EPLFIB '(FIB)'
```

(The DELFIB command will always delete the first job of a given name for the user, hence the user must delete all jobs of a given name if the desired job is not the last one printed by PRFIB).

The portions of this sequence which run unattended under FIB are sensitive to minor indications of trouble, such as record-quota-overflow (which condition itself cannot be recorded in \$\$\$FIB OUTPUT); as a result, strangely-named files may appear from time to time. In particular, the non-EPL output may be in a file temporarily named ...FIB OUTPUT, while the current record of EPL compilations could be in the file named \$\$\$FIB OUTPUT. The user may examine these at his leisure. A series of compilations which has been aborted for any reason will not automatically restart itself under FIB.

#### Format of EPL STACK

EPL STACK is a card-image file (14 words/line) containing the following items for each EPL compilation, in the order the requests were received (one compilation request/line):

```
Cols  1 - 6  NAMEi (right justified)
       7 -12  (LIST) or (RQAS) if off-line printouts
              are to be requested
              (NLST) otherwise
```

Users may also use the ED command to modify the file, at their own peril.

#### Obtaining the Links

The user may obtain the necessary links by issuing the following two commands:

```
LINK FIBGET BCD T234 CMFL01
RUNCOM FIBGET
```

At the conclusion of the RUNCOM, the following links will remain:

```
EPLFIB SAVED
RUNFIB SAVED
EPLEND SAVED
EPLRUN BCD
```

and the link to FIBGET BCD will have disappeared.

The SAVED links are all links to the same file, which is entered under three different guises.

### Restrictions

None of the names of files and links mentioned herein is variable; the only variable part is the list of names which makes its way into EPL STACK. ...FIB OUTPUT should not be in the user's directory when his first FIB job logs itself in, and old versions of EPL OUTPUT and \$\$\$FIB OUTPUT will be appended to.