

TO: MSPM Distribution
FROM: N. Adleman
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The attached revision of BX.7.03 documents the most current implementation of the eplbsa command.

In particular, the working_segs procedure is now used to create temporary segments in the process directory and store the permanent segments in the working directory.

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Identification

The eplbsa command
N. Adleman

Purpose

This section describes the eplbsa command. The user invokes this command to produce, in his working directory, standard text, link, and symbol segments from a segment containing an eplbsa symbolic source program. The eplbsa command may also be invoked by the epl command (MSPM BX.7.02) following an epl compilation.

Usage

When a user types a command line of the following form:

```
eplbsa alpha [option_command (s) ]
```

the eplbsa command is invoked by the shell (MSPM BX.2). The symbol "alpha" may be either a path name or an entry name and specifies that segment <alpha.eplbsa> contains the source program. (If alpha is an entry name, it is assumed to be in the current working directory.) The remaining symbols are interjected option commands. Currently the eplbsa command observes only the following options:

<u>option name</u>	<u>setting</u>	<u>meaning</u>
brief	on	abbreviated comments will be produced by this command.
	off	(default setting) complete comments will be produced by this command.
list	on	segment <alpha.list> will be produced by this command.
	off	(default setting) segment <alpha.list> will not be produced by this command.

For further details on options, see MSPM BX.12.01.

Method

1. Using the symbol "alpha" as the input argument, the eplbsa command calls the entryarg procedure (MSPM BY.2.04) to determine the path name and entry name for <alpha.eplbsa> which contains the eplbsa symbolic source program to be assembled. A pointer to <alpha.eplbsa> is then established by calling the smm\$initiate procedure (MSPM BD.3.02).

If a pointer to the segment <alpha.eplbsa> cannot be created, error type 1 is immediately reported. (see the discussion on errors below.)

2. The settings of the brief and list options are then retrieved by calls to the read_opt (BY.9.10) procedure. These settings are then examined and pertinent internal indicators are established within the eplbsa command.
3. The eplbsa command then invokes the working_segs\$init procedure (MSPM BY.2.11) to create segments in the process directory as follows:

<u>suffix name</u>	<u>maximum size</u>	<u>access setting</u>	<u>copy-relate setting</u>	<u>vacant setting</u>	<u>replace setting</u>
none	65,536	"RE"	"00"b	"0"b	"1"b
".link"	65,536	"R"	"10"b	"0"b	"1"b
".symbol"	65,536	"R"	"10"b	"0"b	"1"b
".list"	262,144	"R"	"00"b	"0"b	"1"b

(See MSPM BY.2.11 for a complete discussion of the above settings). If any one of these segments can not be created in the process directory, error type 2 is reported by the eplbsa command.

4. The assembler is then invoked by the following epl statement;

```
call eplbsa_11;
```

Note that eplbsa_11 has been previously created by the gecost_seg command (MSPM BX.17.01).

5. Upon return from the eplbsa_11 procedure, the eplbsa command determines the lengths of the text, symbol and list segments.

6. The `working_segs$finish` procedure is then invoked to move the newly created segments from the process directory into the working directory. If any of the new segments can not be moved into the desired target directory, the `eplbsa` command reports error type 3 (see below).

Errors

The `eplbsa` command does not use the standard error handling mechanism (MSPM BY.11) to report any abnormalities that may be encountered. Instead, a message is immediately reported by calling the `write_out` (BY.4.02) procedure. The error type is not included as part of the message. The possible errors are:

<u>Type</u>	<u>Meaning</u>
1.	unable to obtain a pointer to the following segment: <"segment_name_filled_in">
2.	unable to create the following segment in the process directory: <"segment_name_filled_in">
3.	unable to move the following segment into the desired target directory: <"segment_name_filled_in">