Identification

Macro Command
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Purpose

A macro is merely a segment prepared using the context editor. In order for the macro to be handled properly when invoked as a command, it must be recognized by the Shell as a macro. The macro command makes the edited segment recognizable to the Shell.

Discussion

When the Shell (BX.2.00) makes linkage to a command it calls generate_ptr (BY.13.02) and checks the definition class of the entry it intends to call. If that class number is 64 the Shell calls the macro_processor (BX.18.01) instead of calling the entry to which it made linkage.

The macro command creates a linkage section for the macro and makes an external definition for macro_name$macro_name (where macro_name is the name of the edited macro segment) with a class number of 64.

Usage

macro macro_name

where macro_name is the name of a segment created using the editor. The segment macro_name contains command lines which include regular commands, macro control commands (described in BX.18.03-BX.18.08) and user procedures. It may also contain input lines designated to be read by a command in the macro.

Macro_name is located in the file system hierarchy in the same manner as the file system commands locate a segment (see BX.8.00). If the pathname macro_name starts with "&" it is assumed to be a pathname relative to the root directory. Otherwise, the pathname macro_name is assumed to be relative to the current working directory.
Implementation

Macro creates a segment macro_name.link in the directory containing the segment macro_name. Macro_name.link is created with the header information necessary for it to pass as a linkage section and one external definition for macro_name$macro_name with class number 64. If macro_name.link already exists in the directory, macro informs the user that it exists and will not be tampered with. It then returns.

The declaration for the contents of macro_name.link is:

```plaintext
dcl 1 linkage,
    2 header,
        3 def_ptr ptr,    /* points to linkage.*/
            ext_def*/
        3 nxt_blk_ptr ptr,    /* null */
        3 pre_blk_ptr ptr,    /* null */
        3 static_location bit (18), /* zero */
        3 block_length bit (18),    /* length of the structure in words */
        3 segment_number bit (18), /* zero */
        3 segment_length bit (18), /* length of the structure in words */
    2 ext_def,
        3 nxt_ext_ptr bit (18),    /* zero */
        3 unused bit (18),    /* zero */
        3 value bit (18),    /* zero */
        3 class bit (18),    /* 64 */
        3 symbol char (N);    /* macro_name */
```

As indicated by the comments, many elements are zero or null. No forward and backward pointers are needed; no static storage will be needed; there is no value for macro_name$macro_name; and the segment number of macro_name when the macro is invoked is obviously not known at this time.

For more information about linkage sections see BD.7.01.

After successfully creating macro_name.link, macro returns.