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Identification

Command_arg
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Purpose

Because of restrictions in the EPL language a procedure written in EPL must have a fixed-length argument list. However, certain Multics commands are called with a variable number of parameters. The command_arg procedure allows a command to obtain all the arguments, regardless of the number of parameters in the compiled procedure.

Usage

To obtain m arguments beginning with the nth argument:

```
     call command_arg (n, count, arg1, arg2, ..., argm);

     dcl n fixed bin (17),

          argi char (*),

          count fixed bin (17);  /*returned by command_arg,
                                   =total number of arguments
                                   passed to command_arg's
                                   caller*/
```

A declaration of char (*) for argi is necessary in the calling program, because command_arg supplies specifier and dope for argi. If command_arg's caller was passed fewer than n+m-1 arguments, say k-1 arguments, then command_arg returns argk, ..., argm = "".

To pass a "return argument" to the calling procedure

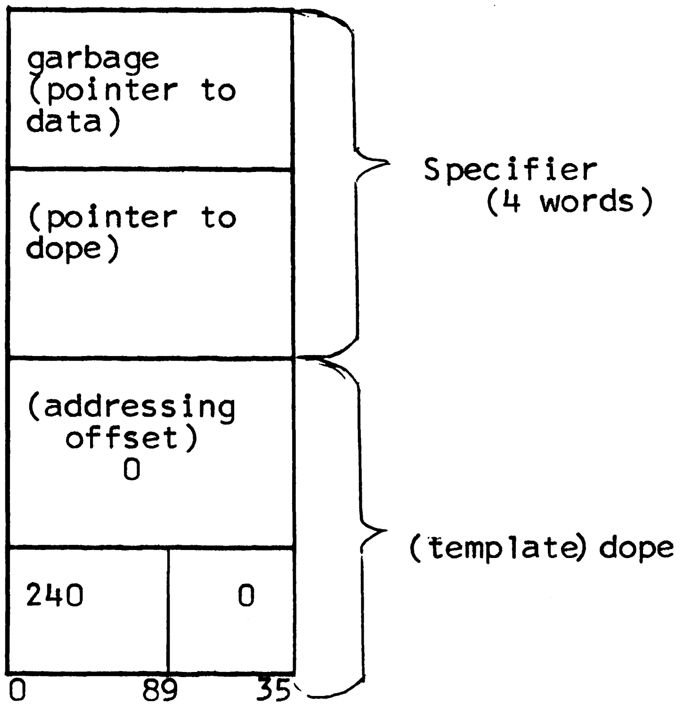
```
     call command_arg$return (n, count, arg);

     dcl arg char (N);     /*command_arg's caller must know
                             the length of N*/
```

Implementation

Command_arg obtains the argument list of its caller, say, proc, and obtains from it the address of the nth argument to proc. Call this argument char_arg.

From its own argument list command_arg obtains a pointer to arg1. Because proc declared arg1 char (*), the pointer points to the following structure:



Command_arg calls cv_string$cs to fill in the specifier and dope in this structure so that arg1 is equal to char_arg. Similarly, command_arg sets arg2 equal to the (n+1)st arg to its caller, and so on.

If n is not greater than count, command_arg$return (n, count,arg) calls stgop_$cscs_ to set char_arg (nth argument to command_arg's caller) equal to arg. If n exceeds count, command_arg simply returns.