

Published: 03/04/67

Identification

Return the path name of a users working directory

wdir

E. A. Bjorkman

Purpose

Since the path name of a user's working directory is implied but not given in many command calling sequences, wdir is provided to furnish this path name.

Usage

wdir\_path\_name = wdir

Wdir is a function whose value is the path name of the working directory of the user making the call. Wdir can also be invoked from the console as an immediate-value command (see section BX.2.00, the Shell). The value returned is a varying character string whose maximum length is declared by the caller.

Implementation

The working directory table is a segment, wdt, located in the process directory of the process making the call. The segment, wdt, is initiated in the process when the process is created. In wdir, the working directory table is declared as follows:

```
dc1 1 wdt ct1 (wdtp),  
    2 current_ptr bit (18),  
    2 wdarea area (16383);
```

The pointer wdtp is also declared:

```
dc1 wdtp ptr ext static init(null);
```

and, for safety's sake, exist in a special static segment, wdt\_stat\_.

If wdtp is null, wdir calls the Segment Housekeeping primitive, getsegptr, to set wdtp to point the segment, wdt. (See BD.3.02 for a description of Segment Housekeeping primitives.) Thereafter, wdtp is correctly set and may be referred by other working directory table procedures (see BX.8.12).

The current working directory is recorded in one entry in wdt. That is, the structure wdt\_entry (see below) has been allocated in wdt->wdt.wdarea, and the relative pointer wdt->wdt.current\_ptr has been set to point to the most recent such allocation.

```
dc1 1 wdt_entry ct1 (wdt_entry),
    2 bkptr bit (18),
    2 charct fixed bin (17),
    2 path char (wdt_entry->wdt_entry.charct);
```

Wdir sets wdt\_entry to point to the current allocation of wdt\_entry by the statement.

```
wdt_entry = ptr (wdt, wdt->wdt.current_ptr);
```

(See BX.9.01 for a description of ptr.) The path name of the current working directory can now be returned by the statement

```
return (wdt_entry->wdt_entry.path);
```

The return argument is declared by the statement

```
wdir: proc char (*) varying;
```

The error possible in wdir is an error which occurs in getsegptr. This error is recorded and signalled using the standard Multics error handling mechanism described in BY.11.00 - BY.11.04.