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Rocky Enterprise Linux 9.2 Manual Pages on command 'environ.7'

\$ man environ.7

ENVIRON(7)

Linux Programmer's Manual

ENVIRON(7)

NAME

environ - user environment

SYNOPSIS

extern char **environ;

DESCRIPTION

The variable environ points to an array of pointers to strings called the "environment".

The last pointer in this array has the value NULL. (This variable must be declared in the user program, but is declared in the header file <unistd.h> if the _GNU_SOURCE feature test macro is defined.) This array of strings is made available to the process by the exec(3) call that started the process. When a child process is created via fork(2), it

inherits a copy of its parent's environment.

By convention the strings in environ have the form "name=value". Common examples are:

USER The name of the logged-in user (used by some BSD-derived programs).

LOGNAME

The name of the logged-in user (used by some System-V derived programs).

HOME A user's login directory, set by login(1) from the password file passwd(5).

- LANG The name of a locale to use for locale categories when not overridden by LC_ALL or more specific environment variables such as LC_COLLATE, LC_CTYPE, LC_MESSAGES, LC_MONETARY, LC_NUMERIC, and LC_TIME (see locale(7) for further details of the LC_* environment variables).
- PATH The sequence of directory prefixes that sh(1) and many other programs apply in searching for a file known by an incomplete pathname. The prefixes are separated

by ':'. (Similarly one has CDPATH used by some shells to find the target of a

change directory command, MANPATH used by man(1) to find manual pages, and so on)

PWD The current working directory. Set by some shells.

SHELL The pathname of the user's login shell.

TERM The terminal type for which output is to be prepared.

PAGER The user's preferred utility to display text files.

EDITOR/VISUAL

The user's preferred utility to edit text files.

Names may be placed in the shell's environment by the export command in sh(1), or by the setenv command if you use csh(1).

The initial environment of the shell is populated in various ways, such as definitions from /etc/environment that are processed by pam_env(8) for all users at login time (on systems that employ pam(8)). In addition, various shell initialization scripts, such as the system-wide /etc/profile script and per-user initializations script may include com? mands that add variables to the shell's environment; see the manual page of your preferred shell for details.

Bourne-style shells support the syntax

NAME=value command

to create an environment variable definition only in the scope of the process that exe? cutes command. Multiple variable definitions, separated by white space, may precede com? mand.

Arguments may also be placed in the environment at the point of an exec(3). A C program can manipulate its environment using the functions getenv(3), putenv(3), setenv(3), and unsetenv(3).

Note that the behavior of many programs and library routines is influenced by the presence or value of certain environment variables. Examples include the following:

- * The variables LANG, LANGUAGE, NLSPATH, LOCPATH, LC_ALL, LC_MESSAGES, and so on influ? ence locale handling; see catopen(3), gettext(3), and locale(7).
- * TMPDIR influences the path prefix of names created by tempnam(3) and other routines, and the temporary directory used by sort(1) and other programs.
- * LD_LIBRARY_PATH, LD_PRELOAD, and other LD_* variables influence the behavior of the dy? namic loader/linker.
- * POSIXLY_CORRECT makes certain programs and library routines follow the prescriptions of

POSIX.

- * The behavior of malloc(3) is influenced by MALLOC_* variables.
- * The variable HOSTALIASES gives the name of a file containing aliases to be used with gethostbyname(3).
- * TZ and TZDIR give timezone information used by tzset(3) and through that by functions like ctime(3), localtime(3), mktime(3), strftime(3). See also tzselect(8).
- * TERMCAP gives information on how to address a given terminal (or gives the name of a file containing such information).
- * COLUMNS and LINES tell applications about the window size, possibly overriding the ac? tual size.
- * PRINTER or LPDEST may specify the desired printer to use. See lpr(1).

NOTES

The prctl(2) PR_SET_MM_ENV_START and PR_SET_MM_ENV_END operations can be used to control the location of the process's environment.

BUGS

Clearly there is a security risk here. Many a system command has been tricked into mis? chief by a user who specified unusual values for IFS or LD_LIBRARY_PATH.

There is also the risk of name space pollution. Programs like make and autoconf allow overriding of default utility names from the environment with similarly named variables in all caps. Thus one uses CC to select the desired C compiler (and similarly MAKE, AR, AS, FC, LD, LEX, RM, YACC, etc.). However, in some traditional uses such an environment vari? able gives options for the program instead of a pathname. Thus, one has MORE, LESS, and GZIP. Such usage is considered mistaken, and to be avoided in new programs. The authors of gzip should consider renaming their option to GZIP_OPT.

SEE ALSO

bash(1), csh(1), env(1), login(1), printenv(1), sh(1), tcsh(1), execve(2), clearenv(3),

exec(3), getenv(3), putenv(3), setenv(3), unsetenv(3), locale(7), ld.so(8), pam_env(8)

COLOPHON

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