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2.6 Environment Variables

⇒ **2.6 Environment Variables.** *Modify the contents of clause 2.6, Environment Variables, to add the following variables in the correct sorted order.*

COLUMNS A decimal integer > 0 used to indicate the user's preferred width in column positions for the terminal screen or window. (See the definition of *column position* in 2.2.2.31.) If this variable is unset or null, the implementation determines the number of columns, appropriate for the terminal or window, in an unspecified manner. When **COLUMNS** is set, any terminal-width information implied by **TERM** shall be overridden. Users and conforming applications should not set **COLUMNS** unless they wish to override the system selection and produce output unrelated to the terminal characteristics. This standard specifies the effects of this variable only for the standard utilities defined by the User Portability Utilities Option in Section 5.

LINES A decimal integer > 0 used to indicate the user's preferred number of lines on a page or the vertical screen or window size in lines. A line in this case is a vertical measure large enough to hold the tallest character in the character set being displayed. If this variable is unset or null, the implementation determines the number of lines, appropriate for the terminal or window (size, terminal baud rate, etc.), in an unspecified manner. When **LINES** is set, any terminal-height information implied by **TERM** shall be overridden. Users and conforming applications should not set **LINES** unless they wish to override the system selection and produce output unrelated to the terminal characteristics. This standard specifies the effects of this variable only for the standard utilities defined by the User Portability Utilities Option in Section 5.

Environment Variables Rationale. *(This subclause is not a part of P1003.2a)*

COLUMNS The default value for the number of column positions is unspecified because historical implementations use different methods to determine values corresponding to the size of the screen in which the utility is run. (In Draft 7, all references to **COLUMNS** and **LINES** were made consistent so that the default is unspecified, rather than implementation defined in a few places. Values for these variables that are not decimal integers > 0 are implicitly undefined values; it is unnecessary to

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enumerate all of the possible values outside of the acceptable set.) This size is typically known to the implementation through the value of **TERM**, or by more elaborate methods such as extensions to the `stty` utility, or knowledge of how the user is dynamically resizing windows on a bit-mapped display terminal. Users should not need to set this variable in the environment unless there is a specific reason to override the implementation's default behavior, such as to display data in an area arbitrarily smaller than the terminal or window.

LINES See **COLUMNS**.

2.11.6.1 Standard Output

⇒ **2.11.6.1 Standard Output.** *Modify the contents of subclause 2.11.6.1, Standard Output (part of 2.11, Utility Description Defaults), to add the following paragraph at the end of the subclause:*

When the User Portability Utilities Option is implemented, some of the standard utilities in Section 5 describe their output using the verb *display*, defined in 2.2.2.204. Output described in the Standard Output subclauses of such utilities may be produced using means other than standard output. When standard output is directed to a terminal, the output described shall be written directly to the terminal. Otherwise, the results are undefined.

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2.13.2 Symbolic Constants for Portability Specifications

⇒ **2.13.2 Symbolic Constants for Portability Specifications.** *Modify the contents of subclause 2.13.2 to add the following limits in the correct sorted order.*

Name	Description
{POSIX2_CHAR_TERM}	The system supports at least one terminal type capable of all operations described in this standard. See 2.14. This value need not be present on a system not supporting the User Portability Utilities Option.
{POSIX2_UPE}	The system supports the User Portability Utilities Option in Section 5.

⇒ **B.2.3 Compile-Time Symbolic Constants for Portability Specifications.** *Modify the contents of subclause B.2.3 to add the following limits in the correct sorted order.*

Name	Description
_POSIX2_CHAR_TERM	The system supports at least one terminal type capable of all operations described in this standard. See 2.14. This value need not be present on a system not supporting the User Portability Utilities Option.
_POSIX2_UPE	The system supports the User Portability Utilities Option in Section 5.

Symbolic Constants Rationale. *(This subclause is not a part of P1003.2a)*

See the rationale for {POSIX2_CHAR_TERM} in 2.14.

In an earlier draft, two limits, {POSIX2_MAX_NICE} and {POSIX2_MIN_NICE}, were included to bound the range of acceptable ''nice values.'' These limits were removed because `nice` and `renice` were reworded to gracefully accept values outside the range without returning an error.

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