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5.36 who — Display who is on the system

5.36.1 Synopsis

```
who [-mTu]
```

5.36.2 Description

The who utility shall list various pieces of information about accessible users. The domain of accessibility is implementation defined.

The default output shall contain at least the following information for accessible users, in an unspecified format: the user's login name, terminal name, and time at which the user logged in.

5.36.3 Options

The who utility shall conform to the utility argument syntax guidelines described in 2.10.2.

The following options shall be supported by the implementation:

-m Output only information about the current terminal.

-T Show the state of each terminal, as described in 5.36.6.1.

-u Output each displayed user's ''idle time'' in addition to any other information. The idle time is the time since any activity occurred on the user's terminal. The method of determining this is unspecified. 8

5.36.4 Operands

None.

5.36.5 External Influences

5.36.5.1 Standard Input

None.

5.36.5.2 Input Files

None.

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7506 #### 5.36.5.3 Environment Variables

7507 The following environment variables shall affect the execution of `who`:

7508 **LANG** This variable shall determine the locale to use for the
7509 locale categories when both **LC_ALL** and the correspond-
7510 ing environment variable (beginning with **LC_**) do not
7511 specify a locale. See 2.6.

7512 **LC_ALL** This variable shall determine the locale to be used to over-
7513 ride any values for locale categories specified by the set-
7514 tings of **LANG** or any environment variables beginning
7515 with **LC_**.

7516 **LC_CTYPE** This variable shall determine the locale for the interpreta-
7517 tion of sequences of bytes of text data as characters (e.g.,
7518 single- versus multibyte characters in arguments).

7519 **LC_TIME** This variable shall determine the format and contents of
7520 the date and time strings.

7521 **LC_MESSAGES** This variable shall determine the language in which mes-
7522 sages should be written.

7523 #### 5.36.5.4 Asynchronous Events

7524 Default.

7525 ### 5.36.6 External Effects

7526 #### 5.36.6.1 Standard Output

7527 The `who` utility writes its default information to the standard output in an
7528 implementation-defined format, subject only to the requirement of containing the
7529 information described above.

7530 The following format shall be used for the `-T` option:

7531 `"%s %c %s %s\n"`, *<user name>* , *<terminal state>* ,
7532 *<terminal name>* , *<time of login>*

7533 where *<terminal state>* is one of the following characters:

7534 `+` The terminal allows write access to other users.

7535 `-` The terminal denies write access to other users.

7536 `?` The terminal write-access state cannot be determined.

7537 In the POSIX Locale, the *<time of login>* shall be equivalent in format to the out-
7538 put of:

7539 `date +"%b %e %H:%M"`

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7540 If the −u option is used with −T, the idle time shall be added to the end of the pre-
7541 vious format in an unspecified format.

7542 #### 5.36.6.2 Standard Error

7543 Used only for diagnostic messages.

7544 #### 5.36.6.3 Output Files

7545 None.

7546 ### 5.36.7 Extended Description

7547 None.

7548 ### 5.36.8 Exit Status

7549 The who utility shall exit with one of the following values:

7550 0 Successful completion.

7551 >0 An error occurred.

7552 ### 5.36.9 Consequences of Errors

7553 Default.

7554 ### 5.36.10 Rationale. *(This subclause is not a part of P1003.2a)*

7555 **Usage, Examples**

7556 None.

7557 **History of Decisions Made**

7558 Due to collisions with historical implementations, the options provided were a
7559 compromise to allow users to get at that functionality. The working group also
7560 weighed the idea of removing all the options, but felt these options offered users
7561 some real value.

7562 It is recognized that the who command may be of limited usefulness, especially in
7563 a multilevel secure environment. It was felt, however, that having some standard
7564 method of determining the ‘‘accessibility’’ of other users would aid user
7565 portability.

7566 The ‘‘domain of accessibility’’ was considered to be a sufficiently broad concept to
7567 permit interpretation either on a very secure basis or even to allow a network-
7568 wide ‘rwho-like’’ implementation.

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The System V implementation of `who` is overloaded with some unrelated functionality (such as displaying the time of the last system reboot). The group decided that the prime function of `who` was to determine which users could be contacted on a system, by `write`, `talk`, etc., and therefore did not consider it proper to burden `who` with unrelated functionality.

The historical `who am I` command, while being one of the more intuitively obvious UNIX system commands, had to succumb to the tide of internationalization. It is replaced by the somewhat less charming `-m` option.

No format was specified for the default `who` output so that existing implementations should not need to be changed, except for adding the new options. In such an obviously user-oriented command, designed only for human consumption, this was not considered to be a deficiency.

The format of the terminal name is unspecified, but the descriptions of `ps`, `talk`, and `write` require that they use the same format.

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5.37 `write` — Write to another user

5.37.1 Synopsis

`write` *user_name* [*terminal*]

5.37.2 Description

The `write` utility shall read lines from the user's standard input and write them to the terminal of another user. When first invoked, it shall write the message:

```
Message from
sender-login-id
(sending-terminal )
[date ]...
```

to *user_name* . When it has successfully completed the connection, the sender's terminal shall be alerted twice to indicate that what the sender is typing is being written to the recipient's terminal.

If the recipient wants to reply, this can be accomplished by typing

`write` *sender-login-id* [*sending-terminal*]

upon receipt of the initial message. Whenever a line of input as delimited by a NL, EOF, or EOL special character (see POSIX.1 {8} section 7.1.1.9) is accumulated while in canonical input mode, the accumulated data shall be written on the other user's terminal. Characters shall be processed as follows:

— Typing the `<alert>` character shall write the `<alert>` character to the recipient's terminal.

— Typing the erase and kill characters shall affect the sender's terminal in the manner described by the POSIX.1 {8} *termios* interface.

— Typing the interrupt or end-of-file characters shall cause `write` to write an appropriate message (`"EOT\n"` in the POSIX Locale) to the recipient's terminal and exit.

— Typing characters from LC_CTYPE classifications `print` or `space` shall cause those characters to be sent to the recipient's terminal.

— When and only when the `stty` *iexten* local mode (see 4.59.4.4) is enabled, additional special control characters and multibyte or single-byte functions shall be processed in an implementation-defined manner. (See POSIX.1 {8} section 7.1.1.9.)

— Typing other nonprintable characters shall cause implementation-defined sequences of printable characters to be written to the recipient's terminal.

To write to a user who is logged in more than once, the *terminal* argument can be used to indicate which terminal to write to; otherwise, the recipient's terminal is selected in an implementation-defined manner and an informational message

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