

## NAME

wordexp.h – word-expansion types

## SYNOPSIS

```
#include <wordexp.h>
```

## DESCRIPTION

The `<wordexp.h>` header shall define the structures and symbolic constants used by the [wordexp\(\)](#) and [wordfree\(\)](#) functions.

The `<wordexp.h>` header shall define the `wordexp_t` structure type, which shall include at least the following members:

```
size_t    we_wordc    Count of words matched by words.
char      **we_wordv  Pointer to list of expanded words.
size_t    we_offs     Slots to reserve at the beginning of we_wordv.
```

The `<wordexp.h>` header shall define the following symbolic constants for use as flags for the [wordexp\(\)](#) function:

```
WRDE_APPEND
    Append words to those previously generated.
WRDE_DOOFFS
    Number of null pointers to prepend to we_wordv.
WRDE_NOCMD
    Fail if command substitution is requested.
WRDE_REUSE
    The pwordexp argument was passed to a previous successful call to wordexp\(\), and has
    not been passed to wordfree\(\). The result is the same as if the application had called
    wordfree\(\) and then called wordexp\(\) without WRDE_REUSE.
WRDE_SHOWERR
    Do not redirect stderr to /dev/null.
WRDE_UNDEF
    Report error on an attempt to expand an undefined shell variable.
```

The `<wordexp.h>` header shall define the following symbolic constants as error return values:

```
WRDE_BADCHAR
    One of the unquoted characters- <newline>, '|', '&', ';', '<', '>', '(', ')', '{', '}'
    - appears in words in an inappropriate context.
WRDE_BADVAL
    Reference to undefined shell variable when WRDE_UNDEF is set in flags.
WRDE_CMDSUB
    Command substitution requested when WRDE_NOCMD was set in flags.
WRDE_NOSPACE
    Attempt to allocate memory failed.
WRDE_SYNTAX
    Shell syntax error, such as unbalanced parentheses or unterminated string.
```

The `<wordexp.h>` header shall define the `size_t` type as described in [<stddef.h>](#).

The following shall be declared as functions and may also be defined as macros. Function prototypes shall be provided.

```
int wordexp(const char *restrict, wordexp_t *restrict, int);
void wordfree(wordexp_t *);
```

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*The following sections are informative.*

## APPLICATION USAGE

None.

## RATIONALE

None.

## FUTURE DIRECTIONS

None.

## SEE ALSO

[<stddef.h>](#)

XSH [wordexp](#)

## CHANGE HISTORY

First released in Issue 4. Derived from the ISO POSIX-2 standard.

### Issue 6

The **restrict** keyword is added to the prototype for [wordexp\(\)](#).

The WRDE\_NOSYS constant is marked obsolescent.

### Issue 7

The obsolescent WRDE\_NOSYS constant is removed.

This reference page is clarified with respect to macros and symbolic constants.

*End of informative text.*

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