

NAME

dwarf_lineaddr, **dwarf_linebeginstatement**, **dwarf_lineblock**, **dwarf_lineendsequence**, **dwarf_lineno**, **dwarf_lineoff**, **dwarf_linesrc**, **dwarf_line_srcfileno** - retrieve information associated with a DWARF line descriptor

LIBRARY

DWARF Access Library (libdwarf, -ldwarf)

SYNOPSIS

#include <libdwarf.h>

int

dwarf_lineaddr(*Dwarf_Line ln*, *Dwarf_Addr *ret*, *Dwarf_Error *err*);

int

dwarf_linebeginstatement(*Dwarf_Line ln*, *Dwarf_Bool *ret*, *Dwarf_Error *err*);

int

dwarf_lineblock(*Dwarf_Line ln*, *Dwarf_Bool *ret*, *Dwarf_Error *err*);

int

dwarf_lineendsequence(*Dwarf_Line ln*, *Dwarf_Bool *ret*, *Dwarf_Error *err*);

int

dwarf_lineno(*Dwarf_Line ln*, *Dwarf_Unsigned *ret*, *Dwarf_Error *err*);

int

dwarf_lineoff(*Dwarf_Line ln*, *Dwarf_Signed *ret*, *Dwarf_Error *err*);

int

dwarf_linesrc(*Dwarf_Line ln*, *char **ret*, *Dwarf_Error *err*);

int

dwarf_line_srcfileno(*Dwarf_Line ln*, *Dwarf_Unsigned *ret*, *Dwarf_Error *err*);

DESCRIPTION

These functions retrieve specific line information associated with the line descriptor specified by argument *ln*, and stores it in the location pointed to by argument *ret*. If argument *err* is not NULL, it will be used to store error information in case of an error.

Function **dwarf_lineaddr()** stores the program address corresponding to the source line specified in argument *ln* into the location pointed to by argument *ret*.

Function **dwarf_linebeginstatement()** sets the location pointed to by argument *ret* to 1 if the source line specified by the line descriptor *ln* is the beginning of a statement, or to 0 otherwise.

Function **dwarf_lineblock()** sets the location pointed to by argument *ret* to 1 if the source line specified by the line descriptor *ln* is the beginning of a basic block, or to 0 otherwise.

Function **dwarf_lineendsequence()** sets the location pointed to by argument *ret* to 1 if the program address associated with the line descriptor *ln* is the address immediately following the end of a sequence of target machine instructions, or to 0 otherwise.

Function **dwarf_lineno()** stores the line number of the source line associated with the line descriptor *ln* into the location pointed to by argument *ret*.

Function **dwarf_lineoff()** stores the column number within a line associated with descriptor *ln* into the location pointed to by argument *ret*. The retrieved column numbers are 1-based, with the value -1 indicating that column number information was not available.

Function **dwarf_linesrc()** stores a pointer to a NUL-terminated string containing the source file name associated with line descriptor *ln* into the location pointed to by argument *ret*. The full path of the source file is returned if possible. The memory used for the source file name string is managed by the DWARF(3) library and should not be directly freed by application code. Instead, portable code should use **dwarf_dealloc(3)** to indicate that the string should be freed.

Function **dwarf_line_srcfileno()** stores the index of the source file associated with the line descriptor *ln* in the location pointed to by argument *ret*. The returned value is 1-based index into the array of source file names returned by **dwarf_srcfiles(3)**.

RETURN VALUES

On success, these functions returns DW_DLV_OK. In case of an error, they return DW_DLV_ERROR and set the argument *err*.

ERRORS

These functions may fail with the following errors:

[DW_DLE_ARGUMENT] Either of the arguments *ln* or *ret* was NULL.

[DW_DLE_LINE_FILE_NUM_BAD] The source file name associated with the line descriptor *ln*

could not be retrieved by function **dwarf_linesrc()**.

SEE ALSO

dwarf(3), dwarf_dealloc(3), dwarf_srcfiles(3), dwarf_srclines(3)