**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)