

NAME

dwarf_get_weak, **dwarf_weak_cu_offset**, **dwarf_weak_die_offset**, **dwarf_weak_name_offsets**, **dwarf_weakname** - retrieve information about weak symbols

LIBRARY

DWARF Access Library (libdwarf, -ldwarf)

SYNOPSIS

```
#include <libdwarf.h>
```

int

```
dwarf_get_weak(Dwarf_Debug dbg, Dwarf_Weak **weak, Dwarf_Signed *nweak,  
                Dwarf_Error *err);
```

int

```
dwarf_weak_cu_offset(Dwarf_Weak weak, Dwarf_Off *cu_offset, Dwarf_Error *err);
```

int

```
dwarf_weak_die_offset(Dwarf_Weak weak, Dwarf_Off *die_offset, Dwarf_Error *err);
```

int

```
dwarf_weak_name_offsets(Dwarf_Weak weak, char **name, Dwarf_Off *die_offset,  
                        Dwarf_Off *cu_die_offset, Dwarf_Error *err);
```

int

```
dwarf_weakname(Dwarf_Weak weak, char **name, Dwarf_Error *err);
```

DESCRIPTION

These functions retrieve information about weak symbols from the lookup tables in the (SGI-specific) ".debug_weaknames" section. Information about weak symbols is returned using opaque descriptors of type *Dwarf_Weak*. Applications need to use the functions described below to retrieve the name and offset information contained in these descriptors.

Function **dwarf_get_weak**() retrieves descriptors for all the weak symbols associated with the DWARF debug context specified by argument *dbg*. The argument *weak* should point to a location that will be set to a pointer to an array of *Dwarf_Weak* descriptors. The argument *nweak* should point to a location that will be set to the number of descriptors returned.

Function **dwarf_weak_cu_offset**() returns the offset, relative to the ".debug_info" section, of the compilation unit that contains the debugging information entry associated with the argument *weak*.

Argument *cu_offset* should point to a location that will hold the returned offset.

Function **dwarf_weak_die_offset()** retrieves the offset, relative to the ".debug_info" section, of the debugging information entry associated with the argument *weak*, and stores it into the location pointed to by the argument *die_offset*.

Function **dwarf_weak_name_offsets()** retrieves the name and offsets for the debugging information entry for argument *weak*. Argument *name* should point to a location which will be set to a pointer to a NUL-terminated string containing the name of the associated debugging information entry. Argument *die_offset* should point to a location which will be set to the offset, relative to the ".debug_info" section, of the associated debugging information entry. Argument *cu_die_offset* should point to a location which will be set to the offset, relative to the ".debug_info" section, of the first debugging information entry in the compilation unit associated with argument *weak*.

Function **dwarf_weakname()** sets the location pointed to by argument *name* to a pointer to a NUL-terminated string holding the name of the debugging information entry associated with the argument *weak*.

Memory Management

The memory area used for the array of *Dwarf_Weak* descriptors returned in argument *weak*s by function **dwarf_get_weak**s() is owned by the DWARF Access Library (libdwarf, -ldwarf). Application code should not attempt to directly free this pointer. Portable code should instead use the function **dwarf_weak_dealloc(3)** to indicate that the memory area may be freed.

The memory area used for the string returned in the *name* argument to functions **dwarf_weak_name_offsets()** and **dwarf_weakname()** is owned by the DWARF Access Library (libdwarf, -ldwarf). Portable code should indicate that the memory area can be freed using the **dwarf_dealloc(3)** function.

Error Returns

If argument *err* is not NULL, these functions will use it to store error information, in case of an error.

RETURN VALUES

On success, these functions return 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] One of the arguments *cu_die_offset*, *cu_offset*, *dbg*, *die_offset*, *weak*,

weak, *name*, or *nweak* was NULL.

[DW_DLE_NO_ENTRY] The DWARF debugging context referenced by argument *dbg* did not contain information about weak symbols.

SEE ALSO

dwarf(3), dwarf_get_cu_die_offset_given_cu_header_offset(3), dwarf_weak_dealloc(3)