NAME

dwarf_get_weaks, **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_weaks(*Dwarf_Debug dbg*, *Dwarf_Weak **weaks*, *Dwarf_Signed *nweaks*,
  *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_weaks**() retrieves descriptors for all the weak symbols associated with the DWARF
debug context specified by argument *dbg*. The argument *weaks* should point to a location that will be
set to a pointer to an array of *Dwarf_Weak* descriptors. The argument *nweaks* 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 *weaks* by function **dwarf_get_weaks**() 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_weaks_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 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]   One of the arguments *cu_die_offset*, *cu_offset*, *dbg*, *die_offset*, *weak*,

weaks, *name*, or *nweaks* 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_weaks_dealloc(3)