

**NAME**

**dwarf\_get\_funcs**, **dwarf\_func\_cu\_offset**, **dwarf\_func\_die\_offset**, **dwarf\_func\_name\_offsets**, **dwarf\_funcname** - retrieve information about static functions

**LIBRARY**

DWARF Access Library (libdwarf, -ldwarf)

**SYNOPSIS**

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

*int*

```
dwarf_get_funcs(Dwarf_Debug dbg, Dwarf_Func **funcs, Dwarf_Signed *nfuncs, Dwarf_Error *err);
```

*int*

```
dwarf_func_cu_offset(Dwarf_Func func, Dwarf_Off *cu_offset, Dwarf_Error *err);
```

*int*

```
dwarf_func_die_offset(Dwarf_Func func, Dwarf_Off *die_offset, Dwarf_Error *err);
```

*int*

```
dwarf_func_name_offsets(Dwarf_Func func, char **name, Dwarf_Off *die_offset,  
    Dwarf_Off *cu_die_offset, Dwarf_Error *err);
```

*int*

```
dwarf_funcname(Dwarf_Func func, char **name, Dwarf_Error *err);
```

**DESCRIPTION**

These functions retrieve information about static functions from the lookup tables in the (SGI-specific) ".debug\_funcnames" section. Information about these functions is returned using opaque descriptors of type *Dwarf\_Func*. Applications need to use the functions described below to retrieve the name and offset information contained in these descriptors.

Function **dwarf\_get\_funcs()** retrieves descriptors for all the static functions associated with the DWARF debug context specified by argument *dbg*. The argument *funcs* should point to a location that will be set to a pointer to an array of *Dwarf\_Func* descriptors. The argument *nfuncs* should point to a location that will be set to the number of descriptors returned.

Function **dwarf\_func\_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 *func*. Argument *cu\_offset* should point to a location that will hold the returned offset.

Function **dwarf\_func\_die\_offset()** retrieves the offset, relative to the ".debug\_info" section, of the debugging information entry associated with the argument *func*, and stores it into the location pointed to by the argument *die\_offset*.

Function **dwarf\_func\_name\_offsets()** retrieves the name and offsets for the debugging information entry for argument *func*. 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 *func*.

Function **dwarf\_funcname()** 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 *func*.

### Memory Management

The memory area used for the array of *Dwarf\_Func* descriptors returned in argument *funcs* by function **dwarf\_get\_funcs()** 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\_funcs\_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\_func\_name\_offsets()** and **dwarf\_funcname()** 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*, *func*, *funcs*, *name*, or *nfuncs* was NULL.

[DW\_DLE\_NO\_ENTRY] The DWARF debugging context referenced by argument *dbg* did not contain information about static functions.

**SEE ALSO**

dwarf(3), dwarf\_funcs\_dealloc(3), dwarf\_get\_cu\_die\_offset\_given\_cu\_header\_offset(3)