

**NAME**

**gelf\_getsymshndx**, **gelf\_update\_symshndx** - read and update symbol information using extended section indices

**LIBRARY**

ELF Access Library (libelf, -lelf)

**SYNOPSIS**

```
#include <gelf.h>
```

```
GElf_Sym *
```

```
gelf_getsymshndx(Elf_Data *symdata, Elf_Data *xndxdata, int ndx, GElf_Sym *sym,  
    Elf32_Word *xndxptr);
```

```
int
```

```
gelf_update_symshndx(Elf_Data *symdata, Elf_Data *xndxdata, int ndx, GElf_Sym *sym,  
    Elf32_Word xndx);
```

**DESCRIPTION**

These functions are analogous to **gelf\_getsym()** and **gelf\_update\_sym()** respectively, but are capable of handling symbol tables using extended section numbering.

Argument *symdata* is an *Elf\_Data* descriptor associated with a section of type SHT\_SYMTAB.

Argument *xndxdata* is an *Elf\_Data* descriptor associated with a section of type SHT\_SYMTAB\_SHNDX. Argument *ndx* is the index of the symbol table entry being retrieved or updated. Argument *sym* is a pointer to a class-independent *GElf\_Sym* structure. *GElf\_Sym* structures are described in detail in [gelf\(3\)](#).

Function **gelf\_getsymshndx()** retrieves symbol information at index *ndx* from the data descriptor specified by argument *symdata* and stores in class-independent form in argument *sym*. In addition it retrieves the extended section index for the symbol from data buffer *xndxdata* and stores it into the location pointed to by argument *xndxptr*.

Function **gelf\_update\_symshndx()** updates the underlying symbol table entry in data descriptor *symdata* with the information in argument *sym*. In addition it sets the extended section index in data buffer *xndxdata* to the value of argument *xndx*.

**RETURN VALUES**

Function **gelf\_getsymshndx()** returns the value of argument *sym* if successful, or NULL in case of an error.

Function **`gelf_update_symshndx()`** returns a non-zero value if successful, or zero in case of an error.

## ERRORS

These functions may fail with the following errors:

[ELF\_E\_ARGUMENT]

Arguments *symdata*, *xndxdata*, *xndxptr* or *sym* were NULL.

[ELF\_E\_ARGUMENT]

Argument *ndx* was less than zero, or too large for either of descriptors *symdata* or *xndxdata*.

[ELF\_E\_ARGUMENT]

Data descriptor *symdata* was not associated with a section of type SHT\_SYMTAB.

[ELF\_E\_ARGUMENT]

Data descriptor *xndxdata* was not associated with a section of type SHT\_SYMTAB\_SHNDX.

[ELF\_E\_ARGUMENT]

Data descriptor *symdata* and *xndxdata* were associated with different ELF objects.

[ELF\_E\_VERSION]

The *Elf\_Data* descriptors denoted by arguments *symdata* and *xndxdata* are associated with an ELF object with an unsupported version.

## SEE ALSO

`elf(3)`, `elf_getdata(3)`, `elf_getscn(3)`, `gelf(3)`, `gelf_getsym(3)`, `gelf_update_sym(3)`