

**NAME**

**dwarf\_hasform**, **dwarf\_whatform**, **dwarf\_whatform\_direct** - query attribute forms

**LIBRARY**

DWARF Access Library (libdwarf, -ldwarf)

**SYNOPSIS**

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

*int*

```
dwarf_hasform(Dwarf_Attribute attr, Dwarf_Half form, Dwarf_Bool *ret, Dwarf_Error *err);
```

*int*

```
dwarf_whatform(Dwarf_Attribute attr, Dwarf_Half *retform, Dwarf_Error *err);
```

*int*

```
dwarf_whatform_direct(Dwarf_Attribute attr, Dwarf_Half *retform, Dwarf_Error *err);
```

**DESCRIPTION**

Function **dwarf\_hasform**() indicates whether the DWARF attribute denoted by argument *attr* has the attribute form specified by argument *form*. If the attribute has the specified form, then argument *ret* is set to a non-zero value, otherwise it is set to zero. If argument *err* is non-NULL, it will be used to return an error descriptor in case of an error.

Function **dwarf\_whatform**() sets the location specified by argument *retform* to the attribute form code for the DWARF attribute referenced by argument *attr*. If the attribute referenced by argument *attr* has an indirect form attribute, this function will return the final form for the attribute. If argument *err* is non-NULL, it will be used to return an error descriptor in case of an error.

Function **dwarf\_whatform\_direct**() sets the location specified by argument *retform* to the attribute form code for the DWARF attribute referenced by argument *attr*. If the form is an indirect form, the function sets the location specified by argument *retform* to DW\_FORM\_indirect. If argument *err* is non-NULL, it will be used to return an error descriptor in case of an error.

**RETURN VALUES**

These functions return DW\_DLV\_OK on success. In case of an error, these functions return DW\_DLV\_ERR and set argument *err*.

**ERRORS**

These functions may fail with the following errors:

[DW\_DLE\_ARGUMENT] Any of the arguments *attr*, *ret*, or *retform* was NULL.

**SEE ALSO**

dwarf(3), dwarf\_attr(3), dwarf\_hasattr(3)