NAME

    dl_iterate_phdr - iterate over program headers

LIBRARY

    For the dynamically linked binaries, the service is provided by ld-elf.so.1(1) dynamic linker. Statically linked programs use an implementation of **dl_iterate_phdr**() from libc.

SYNOPSIS

    #include <link.h>

    int

    dl_iterate_phdr(*int (*callback)(struct dl_phdr_info *, size_t, void *), void *data*);

DESCRIPTION

    The **dl_iterate_phdr**() function iterates over all ELF objects loaded into a process's address space, calling *callback* for each object, passing it information about the object's program headers and the *data* argument. The iteration is aborted when all objects are passed, or when the next *callback* call returns non-zero value. The information about the program headers is passed in a structure that is defined as:

```
struct dl_phdr_info {
        Elf_Addr dlpi_addr;
        const char           *dlpi_name;
        const Elf_Phdr       *dlpi_phdr;
        Elf_Half  dlpi_phnum;
        unsigned long long int dlpi_adds;
        unsigned long long int dlpi_subs;
        size_t               dlpi_tls_modid;
        void                 *dlpi_tls_data;
};
```

    The members of struct dl_phdr_info have the following meaning:

dlpi_addr   The base address at which the object is mapped into the address space of the calling process.

dlpi_name   The pathname of the ELF object.

dlpi_phdr   A pointer to the object's program headers.

dlpi_phnum   The number of program headers in the object.

dlpi_adds   The counter of the object loads performed by the dynamic linker.

dlpi_subs   The counter of the object unloads performed by the dynamic linker.

dlpi_tls_modid The TLS index of the object.

dlpi_tls_data   A pointer to the calling thread' TLS data segment for this module, if it was allocated,
                    NULL otherwise.

Future versions of FreeBSD might add more members to this structure. To make it possible for
programs to check whether any new members have been added, the size of the structure is passed as an
second argument to *callback*.

The third argument to callback is the *data* value passed to the call to **dl_iterate_phdr**(), allowing the
callback to have a context.

RETURN VALUES
The **dl_iterate_phdr**() returns the value returned by the last *callback* call executed.

SEE ALSO
ld(1), ld-elf.so.1(1), dlopen(3), elf(5)

HISTORY
The **dl_iterate_phdr** function first appeared in FreeBSD 7.0.