# Structure of the EIB7 Driver

## 1 Structure of the Source Code

The source code for the EIB7 driver is subdivided into several modules, some of which are specific to a certain operating system. The modules are programmed in ANSI-C, and do not use any extensions except the functions depending on the operating system.

### 1.1 Module Overview

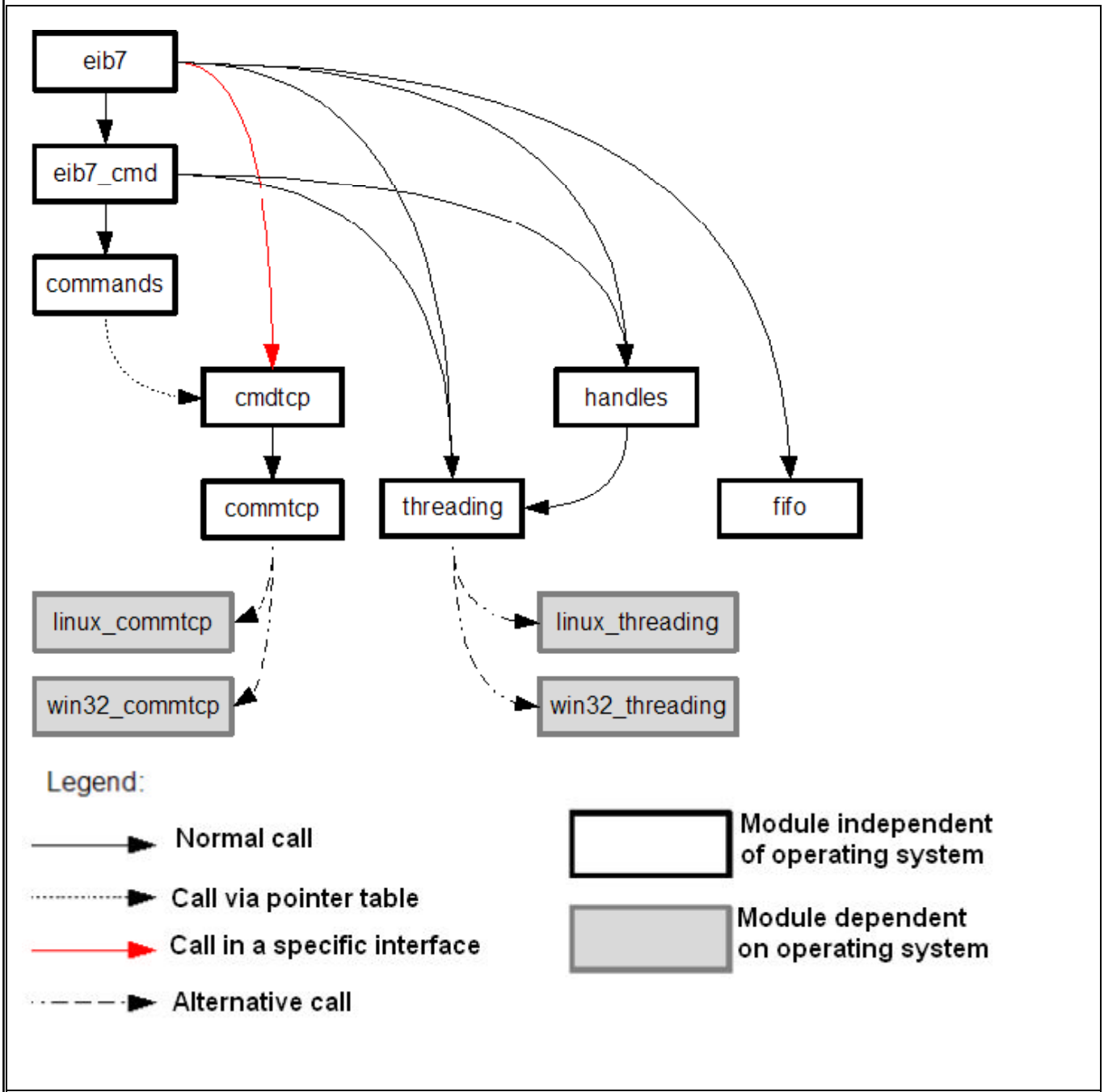


*Figure 1: Module overview*

The modules are interconnected via function calls, and normally consist of the files `<module_name>.h` and `<module_name>.c`.

### 1.2 Abstraction of the Operating-System Specifics

The abstraction is achieved by a specific implementation of the modules `<os>_commtcp` and `<os>_threading` for the respective supported operating system. In order to port to a new operating system, the files `<os>_commtcp.h` and `<os>_threading.h` must be included (via #ifdef) in the header files `commtcp.h` and `threading.h` The code in `<os>_commtcp.c` and `<os>_threading.c` must be adapted to the respective operating system, and a platform-specific makefile must be created.

## 2 Module Description

### 2.1 eib7

This module implements the API functions of the EIB7 driver. All public functions are defined in `eib7.h`. Internal functions should not be used in applications. The modules eib7_cmd, commands and cmdtcp implement internal functions for sending and receiving commands.

### 2.2 commtcp

This is the TCP/IP interface for the driver. The header file declares function calls which are implemented in the respective `<os>_commtcp.c` and `<os>_commtcp.h` files.

### 2.3 <os>_commtcp

This is the operating-system dependent implementation of the TCP/IP functions.

### 2.4 threading

The header file declares function calls implemented in the respective `<os>_threading.c` and `<os>_threading.h` files. This is the thread API for the driver.

### 2.5 <os>_threading

This is the operating-system dependent implementation of the threading functions.