K+K

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How to work with KK Devices under Linux

Version 18.2.3

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To work with KK devices under Linux the shared object KK library is provided. The routines of the KK library are described in a separate document.

History

date	who	version	description
2014-04-02	Loryn	15.06.01	created
2021-01-18	Loryn	18.02.03	Additional versions added

1. KK library under Linux

There are four versions of the KK library available with an identical range of functions.

libkk_fx80e.so	32-bit version with **stdcall** calling convention
libkk_library_32_cdecl.so	32-bit version with **cdecl** calling convention
libkk_library_64.so	64-bit version with **stdcall** calling convention
libkk_library_64_cdecl.so	64-bit version with **cdecl** calling convention

The **cdecl** calling convention is required for use with Python.

2. Requirements

KK library needs **libusb-1.0** for access to local connected USB devices. This shared objects must be installed on the Linux system. Version 0.1.0 is sufficient (libusb-1.0.so.0.1.0). See chapter 3 on how to install a shared object.

3. Installation of KK library

On a Linux system KK library must be installed in a directory that is searched for shared objects.

It is proposed to use directory **/usr/local/lib**, but you can choose another directory.

3.1 Add installation directory to search path

To add an installation directory to the shard object search path, there must be a file in directory **/etc/ld.so.conf.d**, which content is the name of the installation directory.

For example: Installation directory /usr/local/lib

1. Create a file with name *usr_local_lib.conf*
2. Content is one line "/usr/local/lib"
3. Copy file *usr_local_lib.conf* into */etc/ld.so.conf.d*
4. Execute */sbin/ldconfig*, to update shared library search path

Hint: Copy and /sbin/ldconfig require root access.

3.2 Add KK library to shared objects

On delivery, the version number is appended to the file name of the KK library. Since the program code usually accesses file names without an appended version, symbolic links are necessary.

First - depending on the operating system - copy the 32-bit or 64-bit versions of the KK library into the installation directory.

Then set up the symbolic links.

For example:

ln -s libkk_fx80e.so.18.2.3 libkk_fx80e.so

ln -s libkk_library_32_cdcl.so.18.2.3 libkk_library_32_cdel.so

or

ln -s libkk_library_64.so.18.2.3 libkk_library_64.so

ln -s libkk_library_64_cdcl.so.18.2.3 libkk_library_64_cdel.so

To update shared objects management execute */sbin/ldconfig*.

Now KK library is ready to use.