

# For using VCI, driver should be installed with zadig

Elder devices supported only one interface: **HID**. Newer devices/firmware support 2 interfaces: **HID** and **VCI**. HID is very simple and does not require any additional driver on any system. **VCI** is faster. Some devices are drastically faster than **HID**.

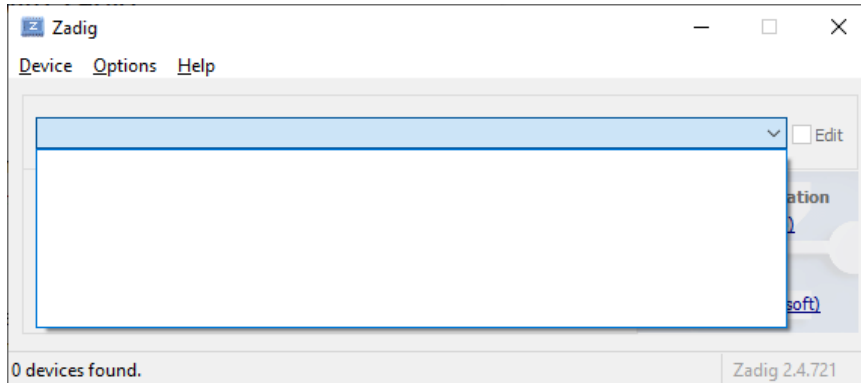
- **VCI** interface does not work on MacOS because of crashes and bugs in MacOS itself :(
- **VCI** works fine on Linux without any action needed, except `libusb` library is to be installed
- On Windows **VCI** must work by default at least on Windows 8 and 10 but it doesn't. So, on Windows, except the **11th**, this **VCI** requires installation of a special driver. It either should be provided by a vendor (but we don't), or by using [zadig](#) or [UsbDk](#). **Zadig** is preferable. So, if your device supports both interfaces the list(enumeration) with available devices will have 2 connections for the device. You can choose a proper connection descriptor and connect against it instead of using simple helper argument-less open. You can find out the interface by a special field (`connectionInterface` get-accessor in C#; `InterfaceCode` field for python; `iface_code` in C so on). Instructions on how to install a driver using zadig see another document. It has to be provided in an API or GUI bundle.

## Workflow

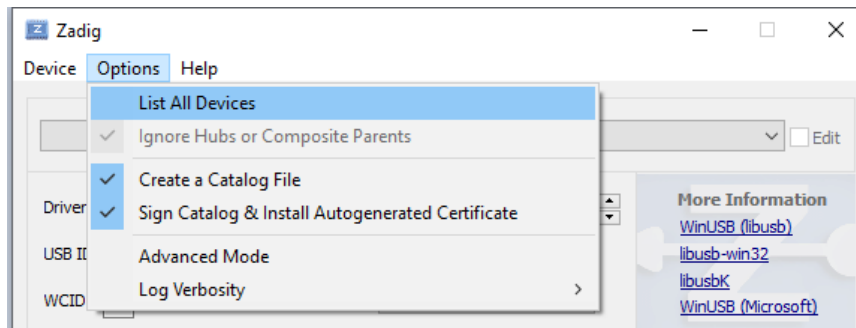
- <https://zadig.akeo.ie/>
- Run **zadig**
- If a drop-down (combobox) is empty set checked **Options > List All Devices**
- Choose "PocketVNA (Interface 1)" in the drop-down
  - **Very Important:** you should select exactly "**interface 1**" -- otherwise HID interface will be down
  - **Very Important:** select exactly "PocketVNA", otherwise some other device will be down
- Choose "WinUSB (v6.1.7600...)" in a spin-box after a green arrow. **zadig** may detect the driver automatically
- Select "Replace Driver"/"Install Driver" in a context for a bottom button: click on the down-arrow on it
  - **Note:** Don't use "Install WCID Driver" ("Downgrade WCID Driver"). Sometimes, at least on older zadig versions it works weirdly
- Hit "Replace Driver"/"Install Driver" button and wait driver to be installed
- Profit. App should use **VCI** connection instead of **HID**
- **Attention:** in case of installing an incorrect driver; or a driver for incorrect device/interface you have to roll-back drivers. On windows all installed drivers are stacked. That does mean, that if you install driver 2 times to recover the original state you have to "Uninstall Device" 2 times!

## Comics

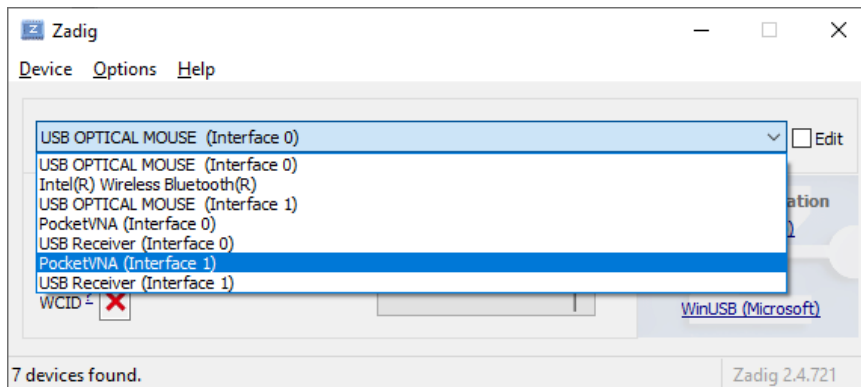
- The list may be empty



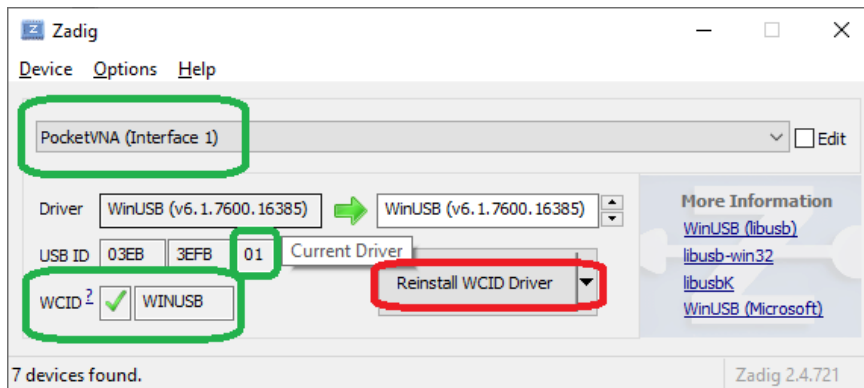
- In this case set Options > List All Devices checkbox



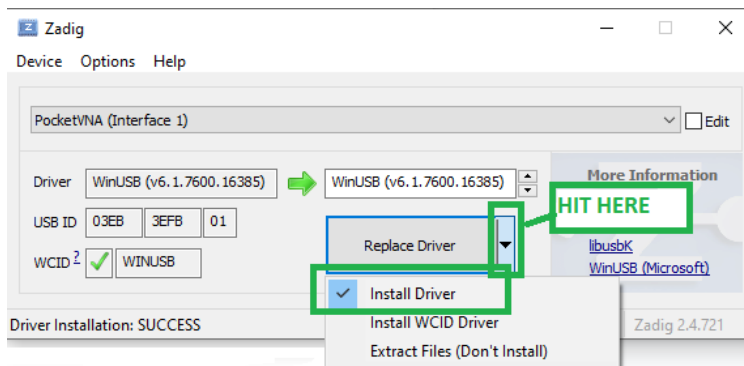
- Choose exactly "**PocketVNA (interface 1)**"



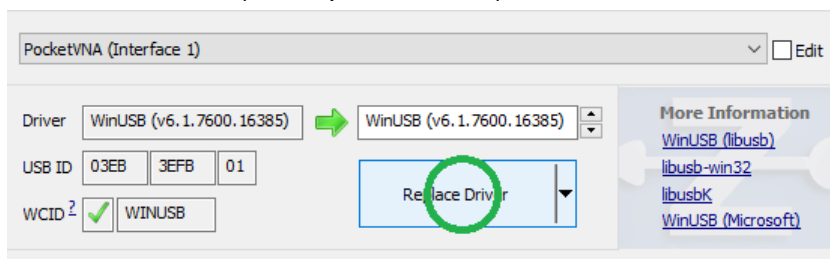
- **Pay attention:** the correct interface is a correct “WCID WinUSB” device. All settings should be detected by Zadig automatically



- In the previous picture combo-button has the state that should be changed. "Install WCID Driver" ("Downgrade WCID Driver") should be changed with "**Install Driver**". Click on “down-arrow”. Hitting on a button’s area leads to driver installation



- Hit “Install Driver” (or “Replace Driver”)



- Wait until driver install
- Note: It seems to be “libusb-win32” driver works well too. But in case of running 32 bit version of PocketVNA application WinUSB should be chosen