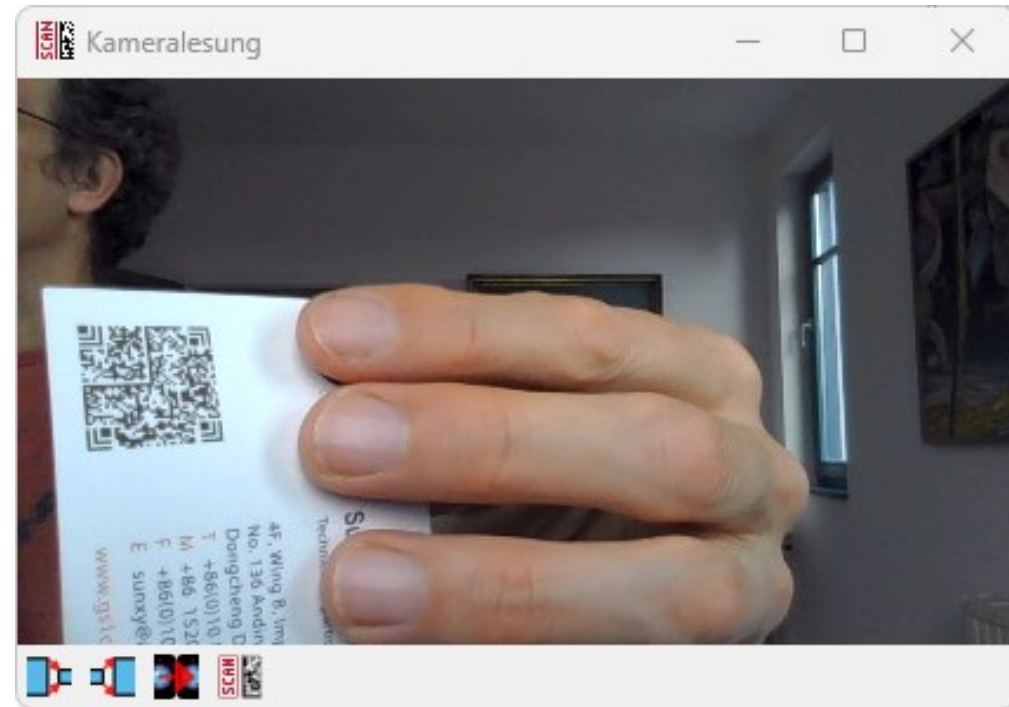# Webcam Tk barcode scanner on MS-Windows platform

- Company Elmicron
- Webcam capture
- Decode image
- Invoke decoding
- Demo

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Company Elmicron

Auto ID
→ Barcode and RFID
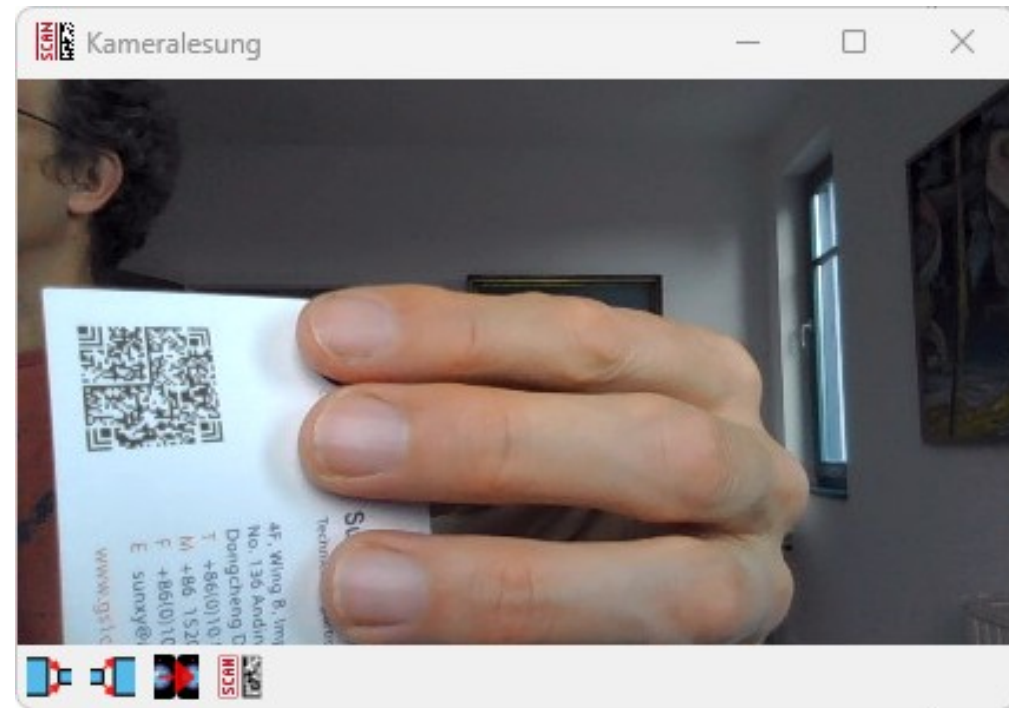→ ISO Standards

5 Employees

TclDevKit Licence

Webcam image capture

- Androwish/Undroidwish has all you need:
  https://androwish.org/home/file?name=assets/zbartool0/zbartool.tcl

- Grab from webcam:

  - tclwmf (Windows)

  - tcluvc (Unix/MacOS?)

- Camera and resolution management

- Callback shows captured image and starts barcode decode

-> Thanks Christian !

Next camera

Higher resolution

Lower resolution

BC decode on tk image

- Androwish/Undroidwish uses zbar decoder.

- Chrsitian has added a threaded background decode mechanism with time management to have only one decode running.

- Unfortunately, zbar is very limitted in features

- Project `zxing-cpp` has rich feature decoder. Unfortunately, Christian does not like C++20 source code...

- Framework by Christian was adopted to this decoder: https://github.com/oehhar/zxing-cpp-wrapper-tcl

```
wmf open $name [list [namespace
current]::capture_wmf $w]

proc capture_wmf {w dev ind} {
    variable img
    variable img2
    if {[catch {wmf image $dev $img}]} {
        return
    }
    if {![catch {
        zbar::async_decode $img \
         [list [namespace current]::decoded_wmf
$w $dev]
    } err]} {
        $img2 copy $img -compositingrule set
    }
}
```

Invoke decode

- Program is in background and decode should be started by a gui element on a tablet computer.

- Two solutions:

- Tap on the taskbar entry

- Tap on a flying window

-> Demo will show all this