

# EuroTCL 2019 – Part 2

## Mobile Inventory System using TCL and AndroWish



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# Overview - Part 2

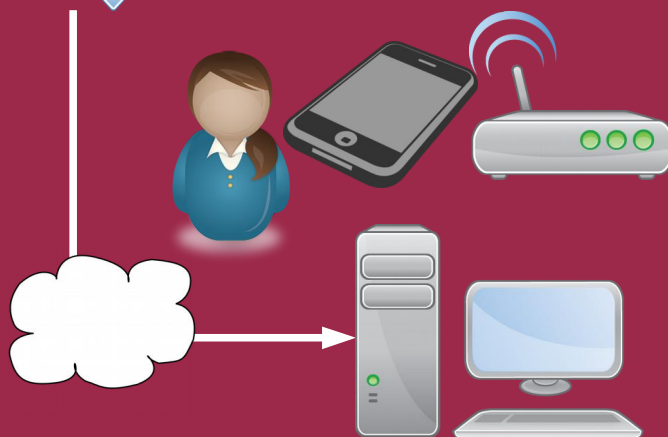
- Additional (legal) requirements for inventory
- Inventory management tool
- Mobile data acquisition (based on barcodes)
  - Android Handy Application (AndroWish)
  - Collection and Viewing of article data
- Development environment
- Software distribution

# Article stock keeping

## Legal requirement

Live Show

- Rudimentary support for inventory batch via spreadsheet export/import
- Article stock export exists (CSV)



- Additional mobile equipment required
- Additional tools for management

Object:  
„fädelschaf“



Rasselfisch Inventory Manager 0.35

bestandinv	aid	vid	lieferant	title	color	...	...is_vk	...stand	datum
0	7996	17492	les jouets libres	time to play - spiele fü...	flugzeug		16.00	3	
0	7996	17493	les jouets libres	time to play - spiele fü...	summer		16.00	3	
0	7998	17495	les jouets libres	pictocraft			27.00	3	
0	8645	19357	petit monkey/...	kofferset suzy ultman			23.00	2	
0	10375	23770	petit monkey/...	kissen fisch			15.00	1	
0	11454	26788	petit monkey/...	nachtlicht seepferdchen	mint		12.00	3	
2	7736	16858	les jouets libres	fädelschaf	graue ...		23.00	2	2019-06-26 13
0	8079	17753	petit monkey/...	nachtlicht wolke	weiss		10.00	1	
0	8080	17756	petit monkey/...	matruschka familie holz	helen d...		19.00	1	
0	8080	19092	petit monkey/...	matruschka familie holz	blumen...		19.00	1	
0	8649	19365	petit monkey/...	nachtlicht eisbär			12.00	1	

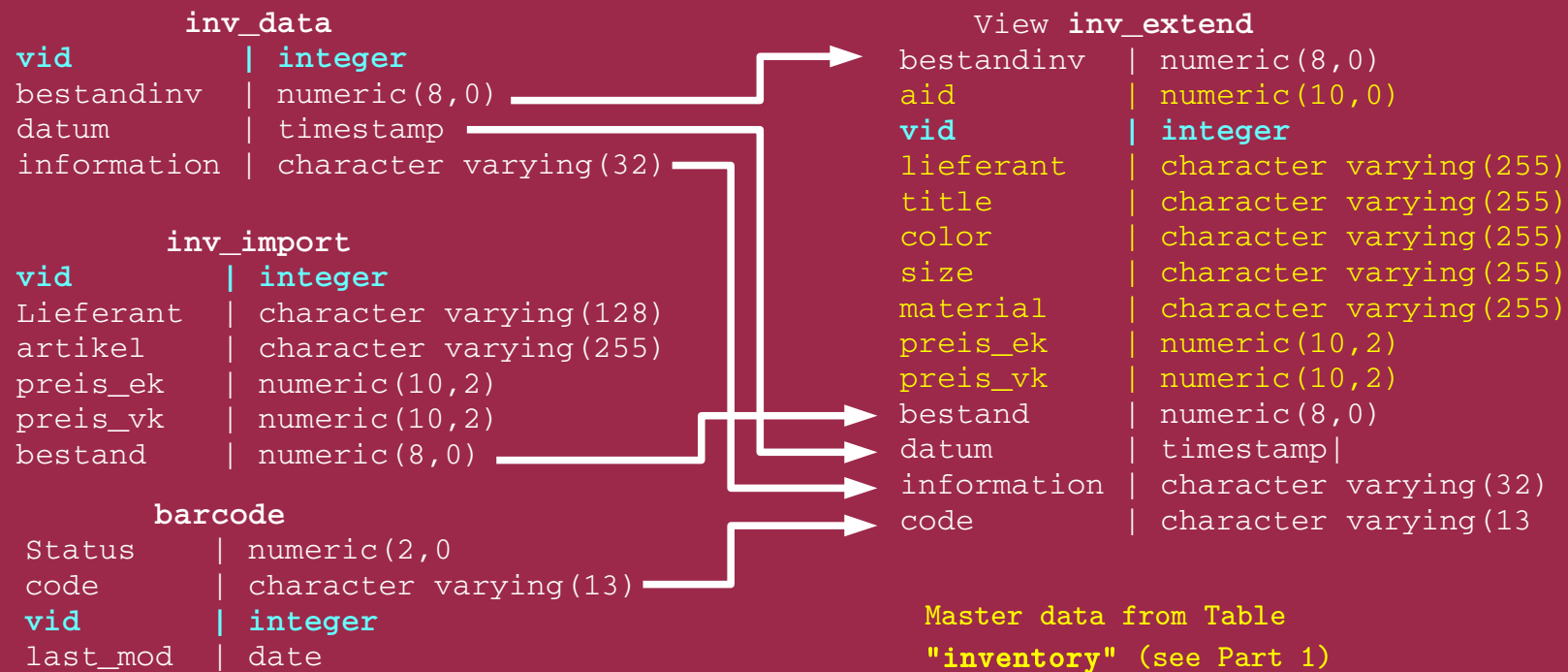
Status: 11 of 2007 rows visible

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2019-06-29

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# Interface – Database



# Barcode Application: zbar



## ZBar bar code reader

„ZBar is an open source software suite for reading bar codes from various sources, such as video streams, image files and raw intensity sensors. It supports many popular symbologies (types of bar codes) including EAN-13/UPC-A, UPC-E, EAN-8, Code 128, Code 39, Interleaved 2 of 5 and QR Code.“

<http://zbar.sourceforge.net/>

Tool has been ported to AndoWish by

*Christian Werner*

and is one of the various barcode readers which can be used in AndroWish.

# User Interface – Main Screen

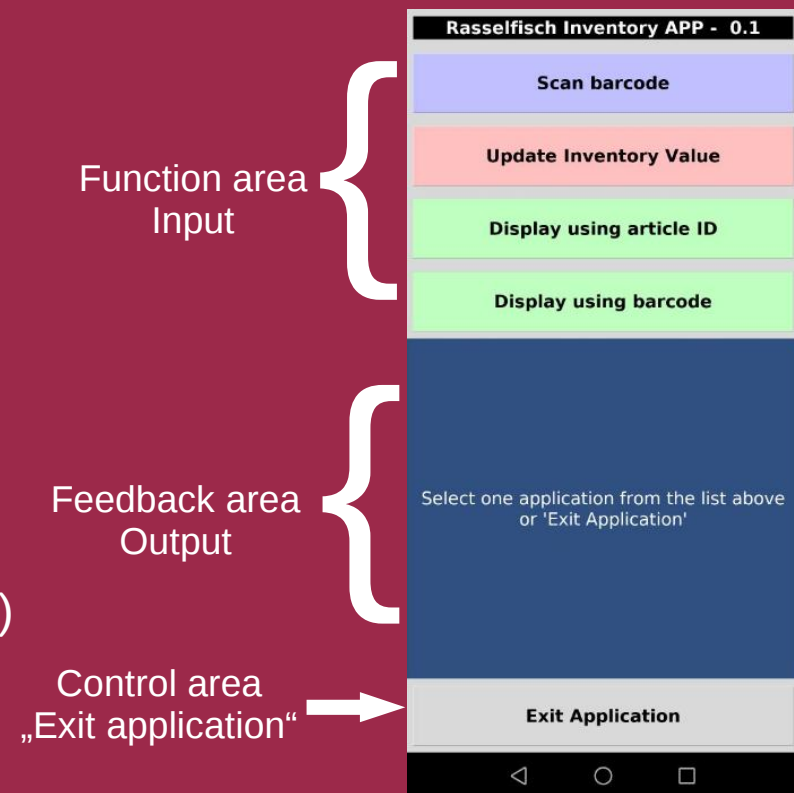
Only one single function: Check or update the Inventory data

Android philosophy:

List of independent screens

Available functions are:

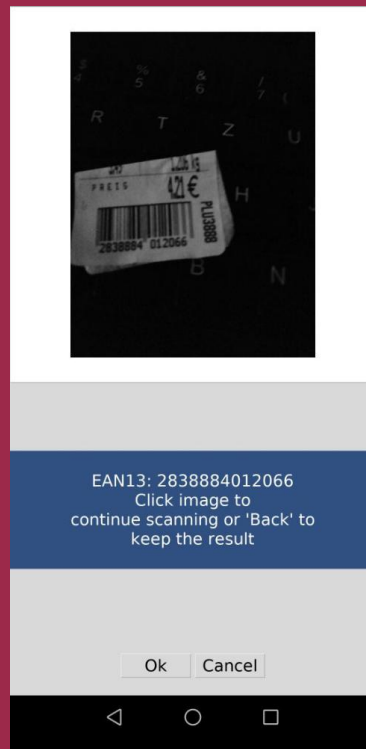
- Scan a barcode for later use
- Update the inventory value
- Display single article data
- Search by using ID
- Search by scanning barcode
- Control function (Leave application)



# Other Screens

Live Show

Scan barcode



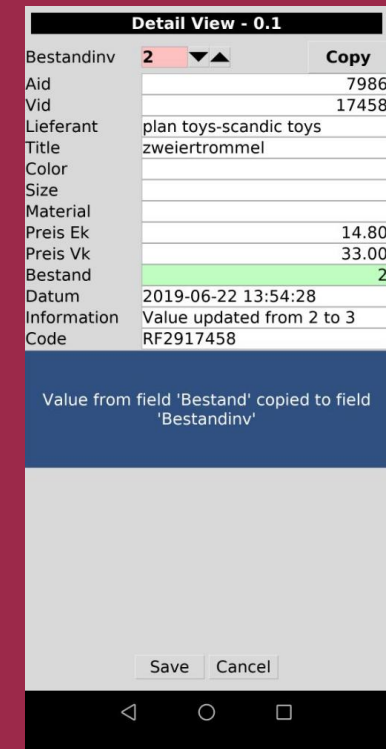
Search by ID



View details



Update data



# Development

- The Software is written as script and executed by the AndrWoish interpreter (currently no APK)
- Automatic start on click is done by using a specific .wishrc script. The content of the rc-file is:

```
#
# WishRC startup script .wishrc
#
set source_dir [file join $env(EXTERNAL_STORAGE) TCL]
set auto_start [file join $source_dir autostart.tcl]
cd $source_dir
if {[file exist $auto_start]} {
    source $auto_start
}
```

A setup script which creates this rc-file is available.

This script searches for a file named „autostart.tcl“ in the subdirectory „TCL“ of the external storage (typically /mnt/sdcard) and if it exists the script is executed.



# Deployment

The complete Software is installed by „pushing“ the complete development tree to the \$source\_dir of the Andoid device.

```
$ adb push bin etc lib scr /mnt/sdcard/TCL/Inventur  
/mnt/sdcard/TCL/Inventur/scr/: 5 files pushed.  
0 files skipped. 0.9 MB/s (1527552 bytes in 1.700s)
```

A very convenient way to keep the source tree in sync with the local tree is the python tool:

**adb - sync**

<https://github.com/google/adb-sync>

The auto\_start script is:

```
set source_dir [file join $env(EXTERNAL_STORAGE) TCL]  
set script [file join $source_dir Inventur scr invent_app.tcl]  
source $script
```

# Open Questions?

*Thank you for your attention*

