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First experiences from the OBFCM reading field test

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2016: First prototype of a TESTEK PTI OBD scan tool

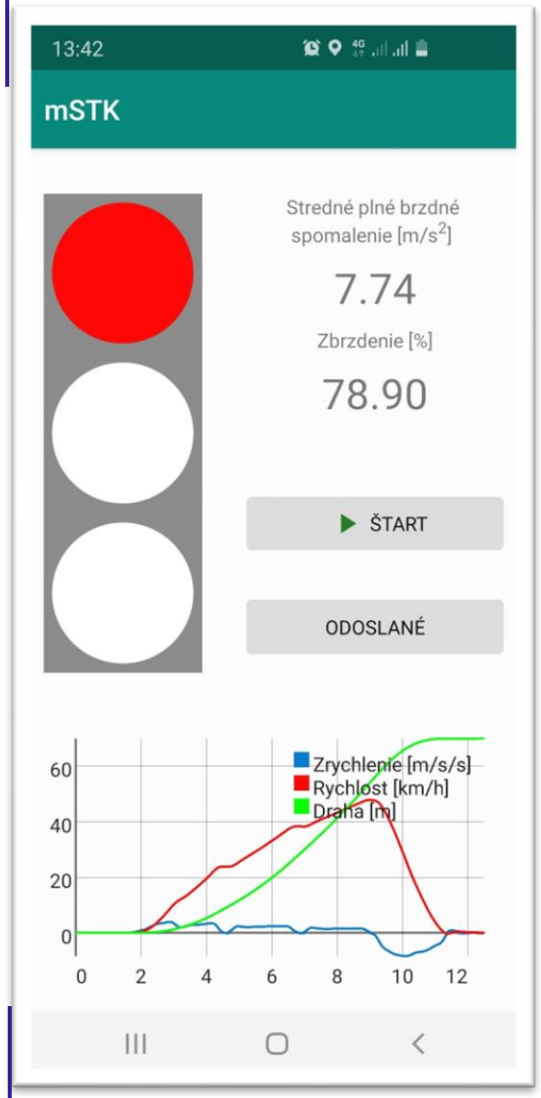
mSTK - a mobile application for PTI developed by TESTEK

- mSTK has been introduced into PTI in Slovakia in January 2020
- mSTK is used for taking photos of VIN number, manufacturer's plate, odometer or other problematic parts of inspected vehicles; photos are being sent to the central information system via internet automatically
- mSTK reads DTCs via ELM 327 (Bluetooth OBD adaptor); data are being sent to the central information system via internet automatically as well
- mSTK also includes the functionality for the driving brake test evaluation and fully replaces decelerometer (for this reason it is possible to calibrate the build-in accelerometer of the mobile device)
- **mSTK's OBFCM reading functionality (using ELM 327) is in field test these days**

Very simple and practical GUI (graphical user interface)

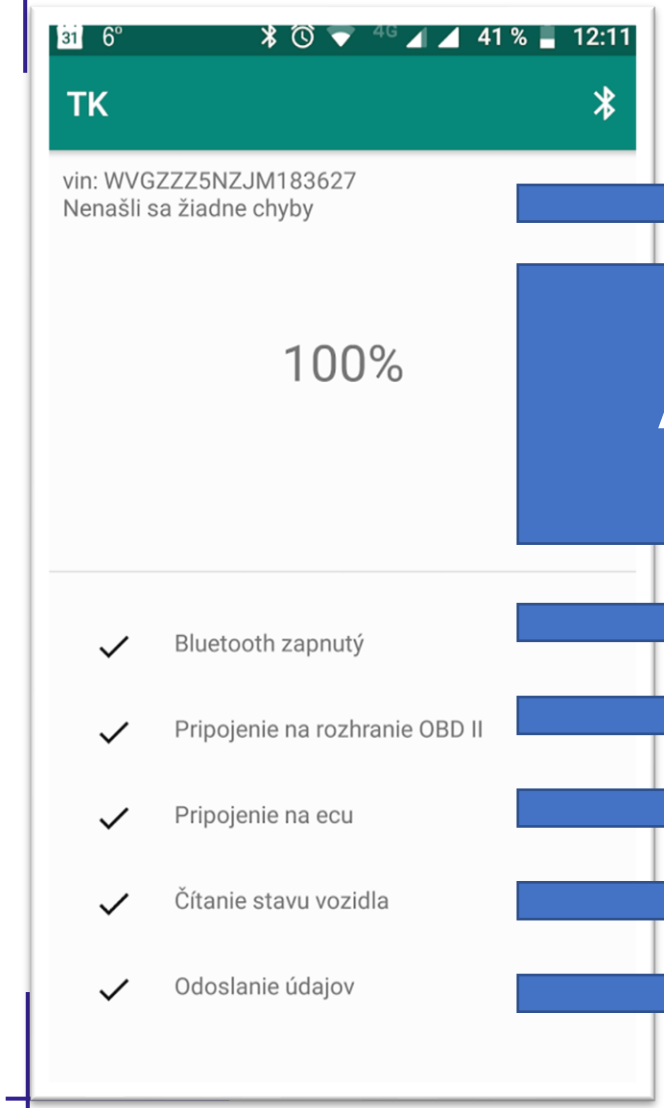
- Take a photo of Odometer
- Take a photo of VIN number
- Take other photos
- Functionality for DTC reading (includes OBFCM)
- Functionality for driving brake test

Functionality for the driving brake test



- The mean fully developed deceleration
- Brake efficiency
- Button to Start driving test
- Button to data transfer to the information system
- Distance, speed and acceleration during driving test

Functionality for DTC reading – includes OBFCM



VIN and information about transferred DTC

Automatic process without inspector's intervention

Bluetooth ON

Connection to OBD interface

Connection to ECU

Data reading

Data transferred - **includes OBFCM**

What we are reading in the OBFCM functionality

Combustion engine vehicle:

- Total fuel consumed (lifetime)
- Total distance travelled (lifetime)

Hybrid vehicle:

- Total fuel consumed (lifetime)
- Total distance travelled (lifetime)
- Total distance travelled in charge depleting operation with engine off (lifetime)
- Total distance travelled in charge depleting operation with engine running (lifetime)
- Total distance travelled in driver-selectable charge increasing operation (lifetime)
- Total fuel consumed in driver-selectable charge increasing operation (lifetime)
- Total fuel consumed in charge depleting operation (lifetime)
- Total grid energy into the battery (lifetime)

1st case – exact data read from OBFCM

Obfcm správa:

{raw:'013 0: 49 17 01 00 00 48 1: 55 00 00 48 90 00 00 2: 2D 5E 00 00 2D E5 00 , NO DATA , NO DATA , NO DATA ', obfcm:'km:1857.6000000000001, litres=117.49000000000001, kmEOff:-1, kmEOn:-1, kmEONDC:-1, litresCD:-1, litresDSCD:-1, kwhGIB:-1'}

2nd case – almost exact data read from OBFCM

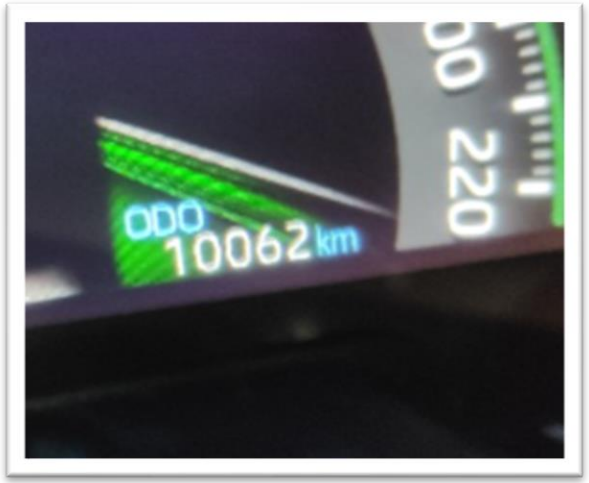
Obfcm správa:

{raw:'013 0: 49 17 01 00 00 00 1: 00 00 00 56 4D 00 00 2: 00 00 00 00 41 60 FF , NO DATA , NO DATA , NO DATA ', obfcm:'km:2209.3, litres=167.36, kmEOff:-1, kmEOn:-1, kmEONDC:-1, litresCD:-1, litresDSCD:-1, kwhGIB:-1'}

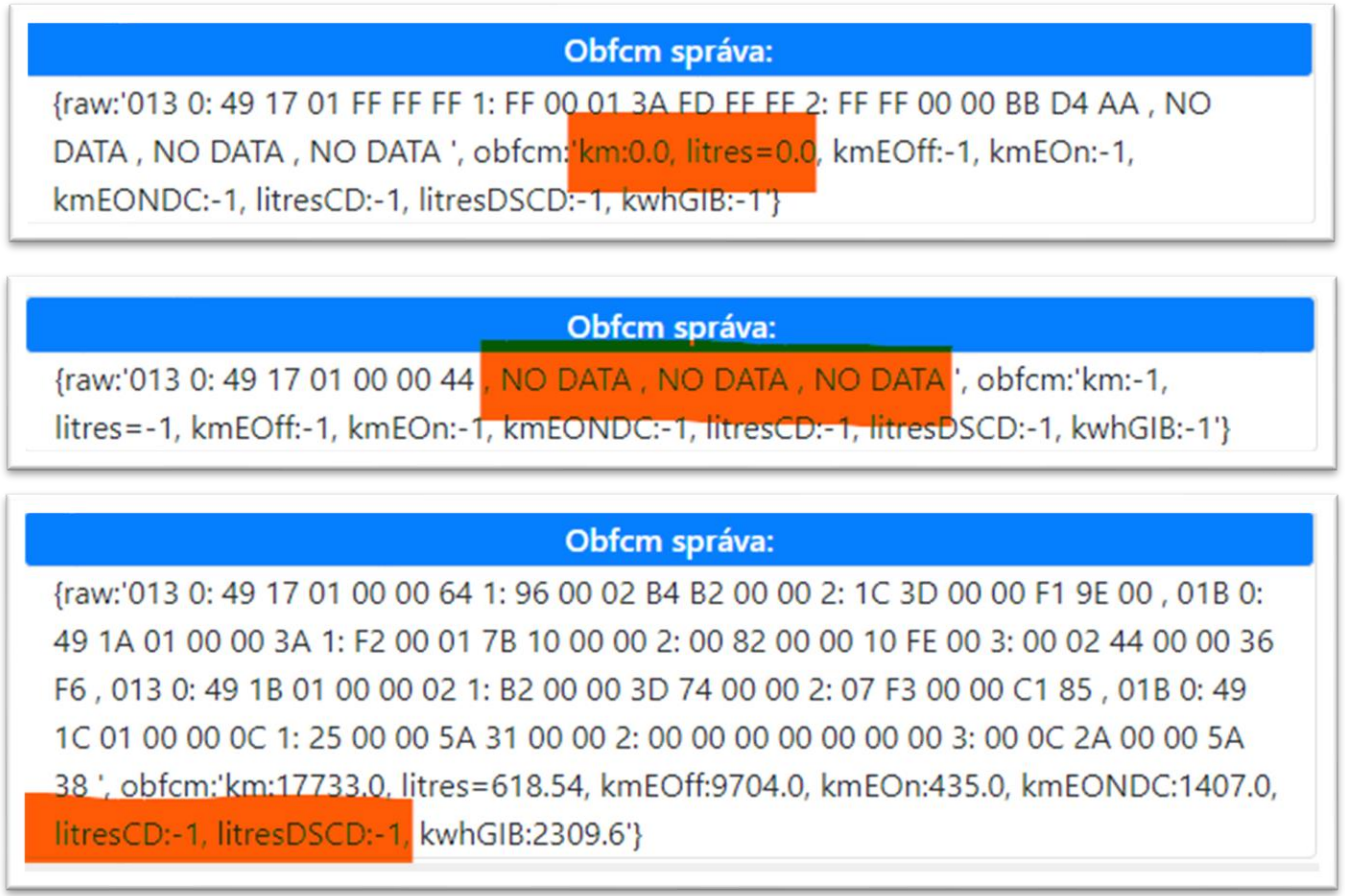
3rd case – inaccurate data read from OBFCM

Obfcm správa:

{raw:'013 0: 49 17 01 00 00 00 1: 25 00 00 00 39 00 00 2: 00 89 00 00 00 AB 00 , NO DATA , NO DATA , NO DATA ', obfcm:'km:5.7, litres=1.71, kmEOff:-1, kmEOn:-1, kmEONDC:-1, litresCD:-1, litresDSCD:-1, kwhGIB:-1'}



4th case – no data read from OBFCM or incomplete data in hybrid vehicles



Thank you for attention

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