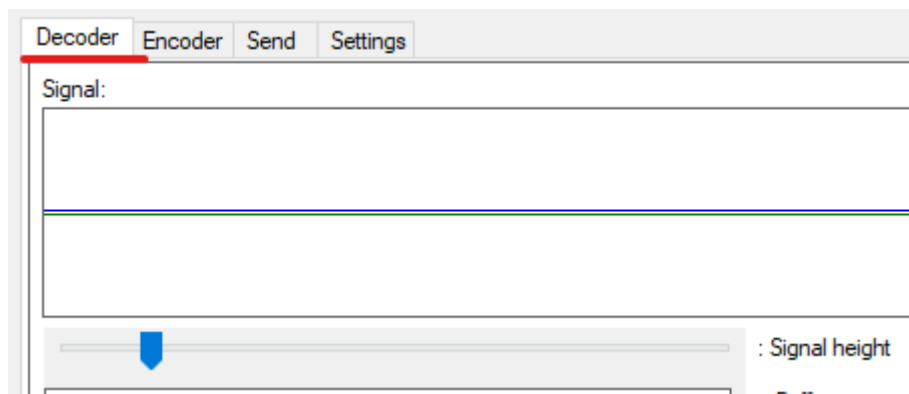


# SoundCard Data Interface Manual

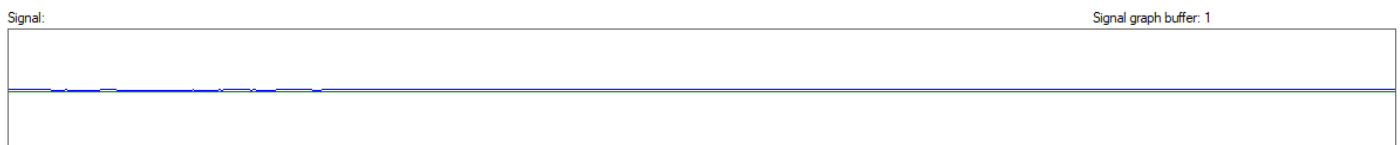
by Yurii Faraday

## Capturing and decoding data

- Open the SDI app.
- Make sure, that decoder menu selected.

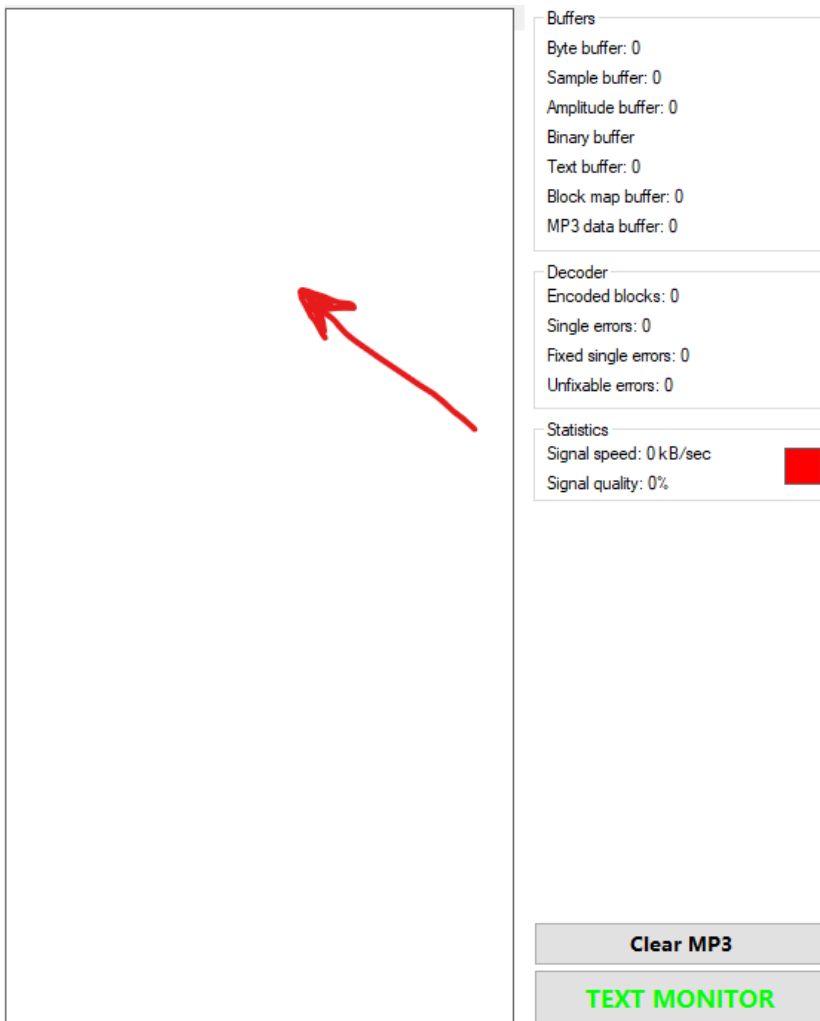


- Check current window controls out to be enlightened.
  - This is input signal graph:

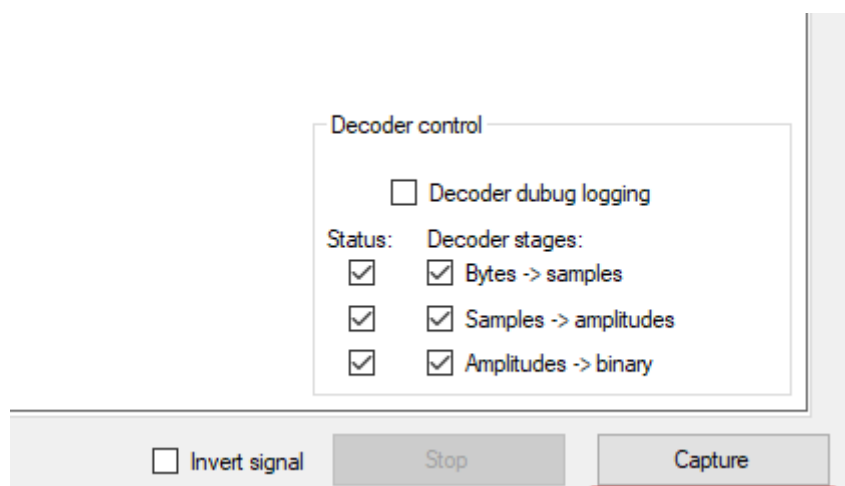


- Window, that red arrow shown is data block map field. It filled, when some data has been gotten with special colored squares:

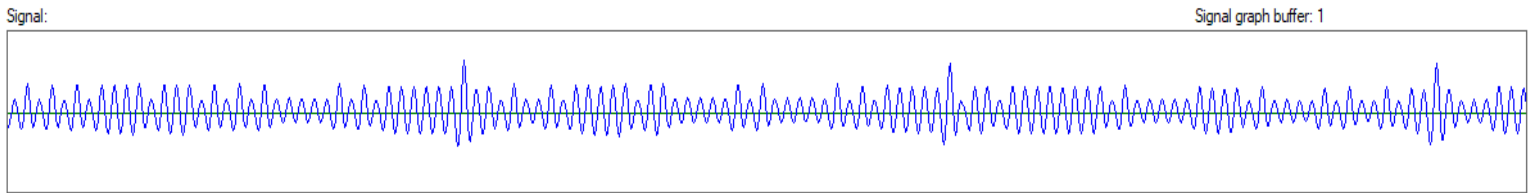
Blue - control block  
 Green - correct block  
 Yellow - fixed block  
 Red - unfixable block  
 Transparent - unidentified block



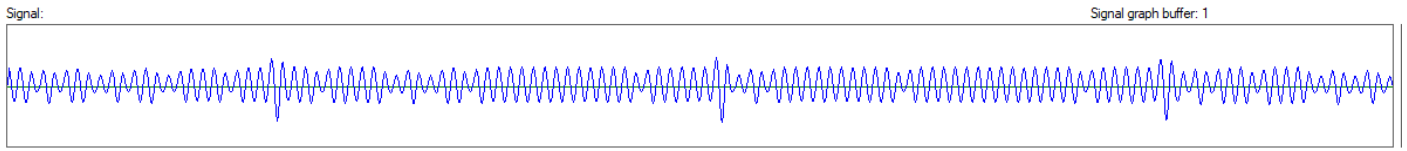
- Press “capture” button to start capturing from sound card input device (see “preparing” article for more details about input device selection)



- If input signal contains useful data, signal graph will be like that:



- Be attention! Signal may be inverted about X axis and looks like that:

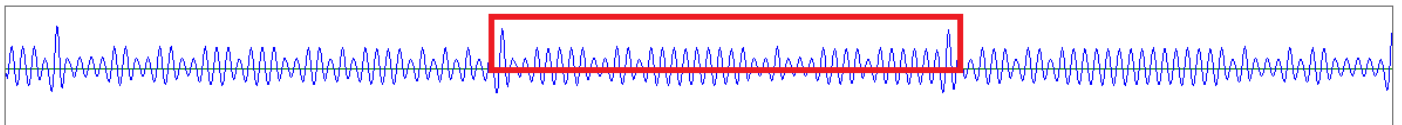


In this case, you have to check “invert signal” check box

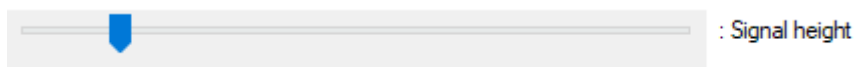
Decoder settings window:

- ☐ Decoder debug logging
- Status:
  - ☒ Bytes -> samples
  - ☒ Samples -> amplitudes
  - ☒ Amplitudes -> binary
- ☒ Invert signal
- Stop
- Capture

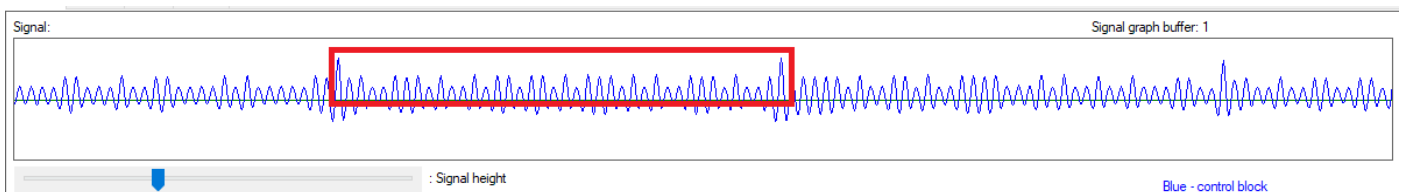
- Sometimes, you have to make some adjustments with signal height to get more stable signal. On the picture below useful data frame selected with red rectangle.



Sometimes, signal has very small amplitude and it may be corrected using some adjustments with signal height. Use “signal height” track bar:

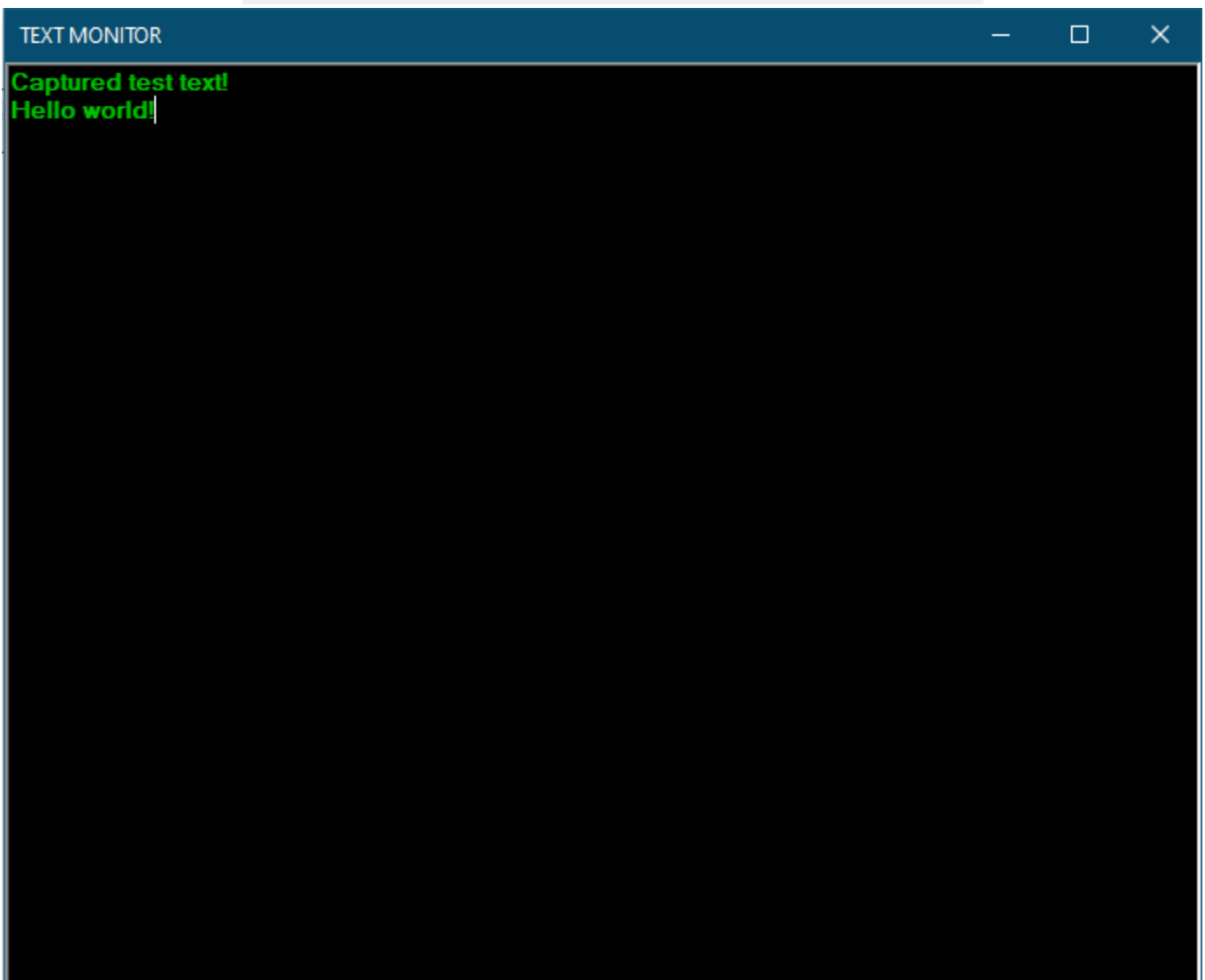
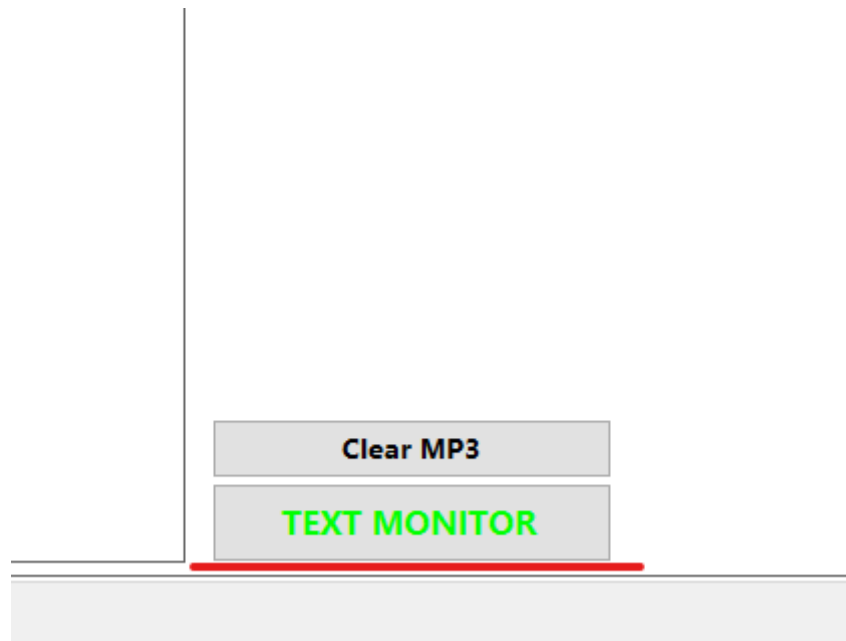


Switch track bar position in right direction to shift up the signal:

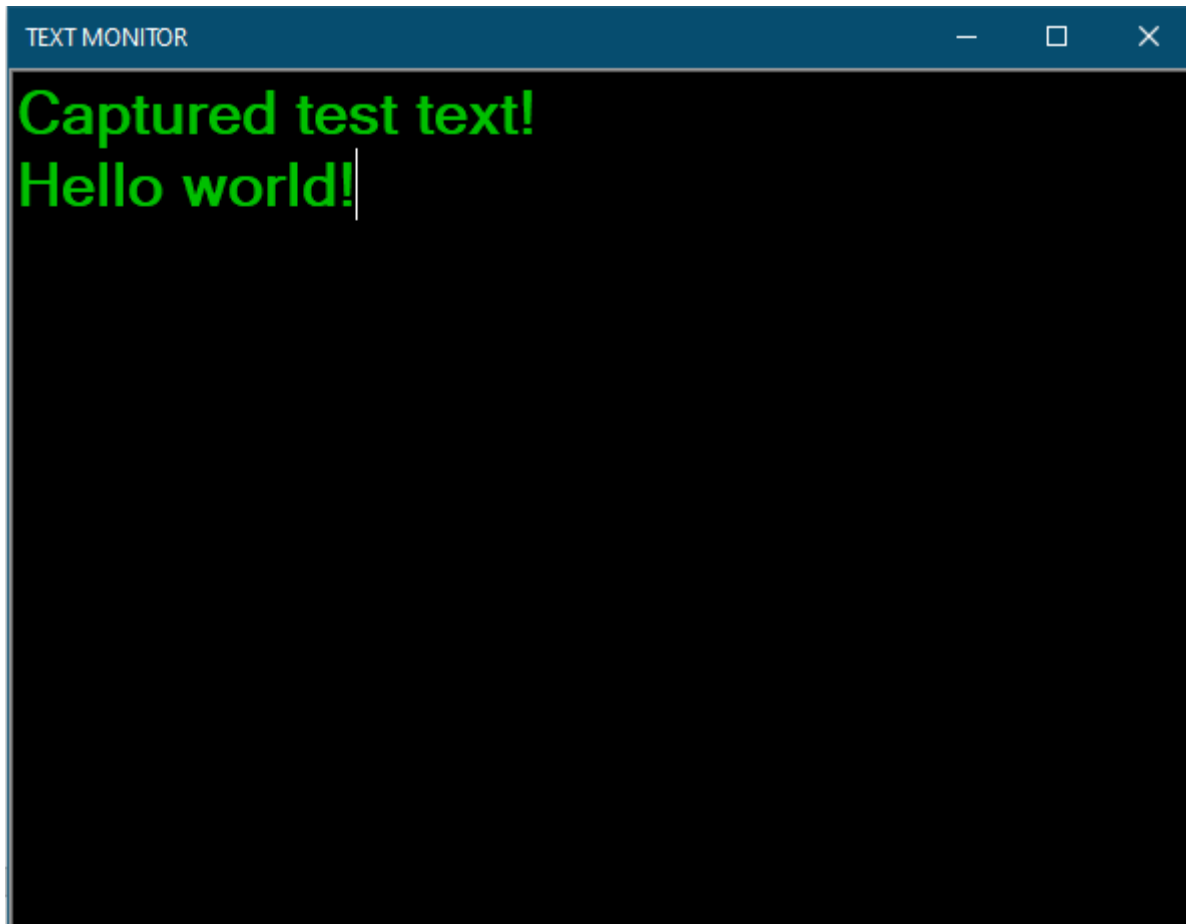


It's much better

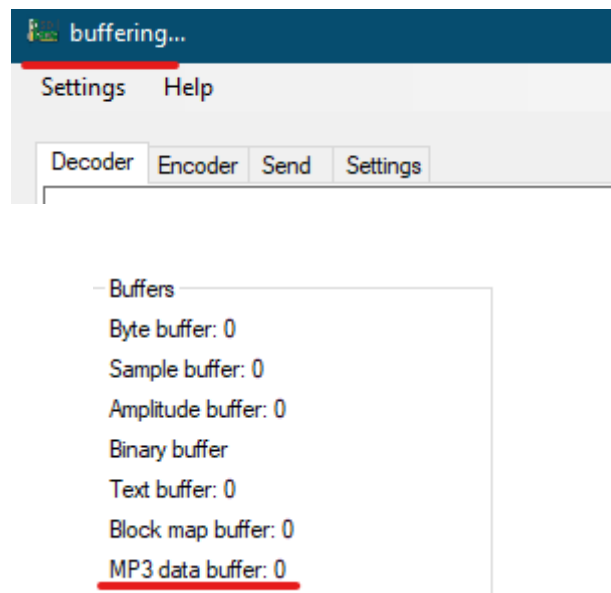
- To check text data decoded, press “text monitor” button. When text monitor window closed, text data fill special text buffer, but its size is fixed and when it overfilled, data won’t be saved.



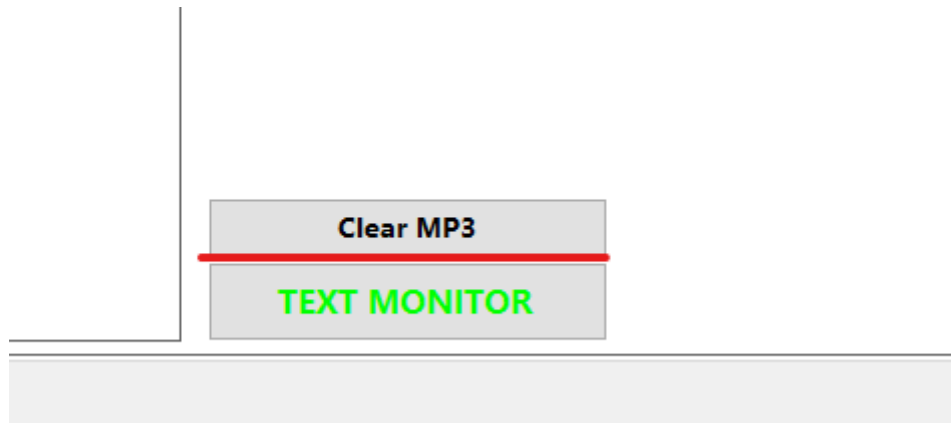
- For change text size (only for more comfortable looking) set cursor at text box and push control then use mouse wheel



- You may, also, edit, copy the text and delete this, if needed. If you close text monitor window, text data will be cleared.
- If mp3 data given, app'll play it automatically. State of mp3 buffer you may see at app name label and at special group box:



- If mp3 sounds weird or intermittently, press “clear mp3” button. It’ll clear all decoded mp3 data.



- For more details about errors correction and signal quality, see “encoded signal basics and adjustments”.