



CobraRTP Utility

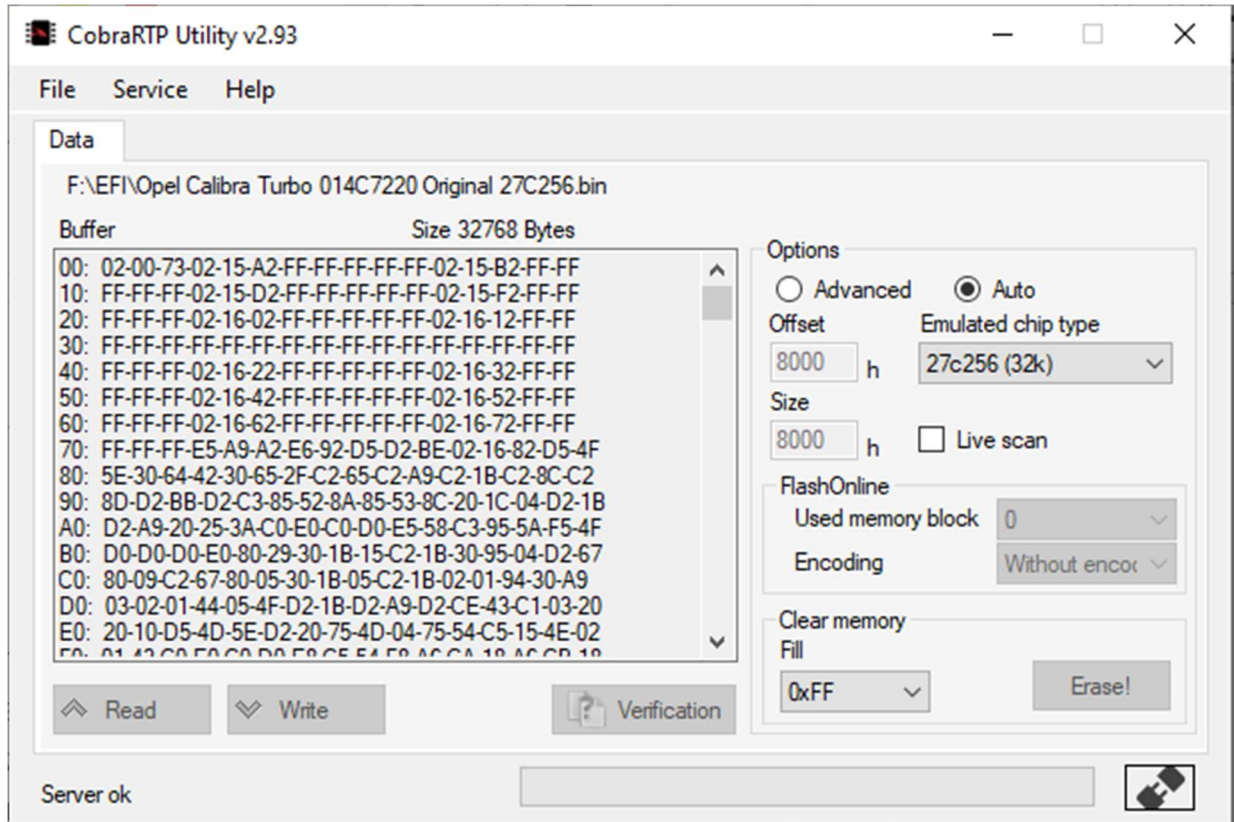
User Manual

Rev. 1.5

Description

CobraRTP Utility is a manager for the operation and maintenance of CobraRTP emulators. Currently supported *.bin format.

Official page: <https://cobrartp.com/en/cobrartp-utility/>

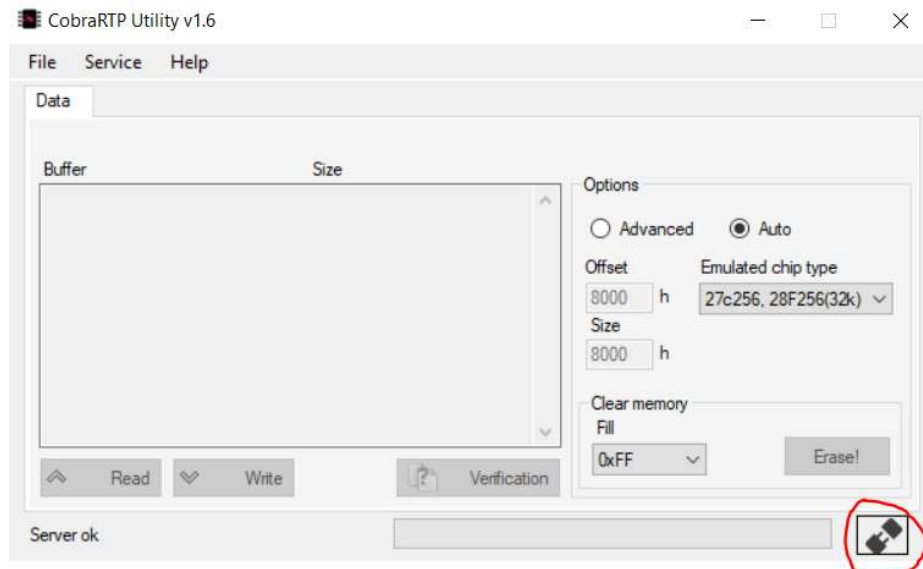


Gui of CobraRTP Utility

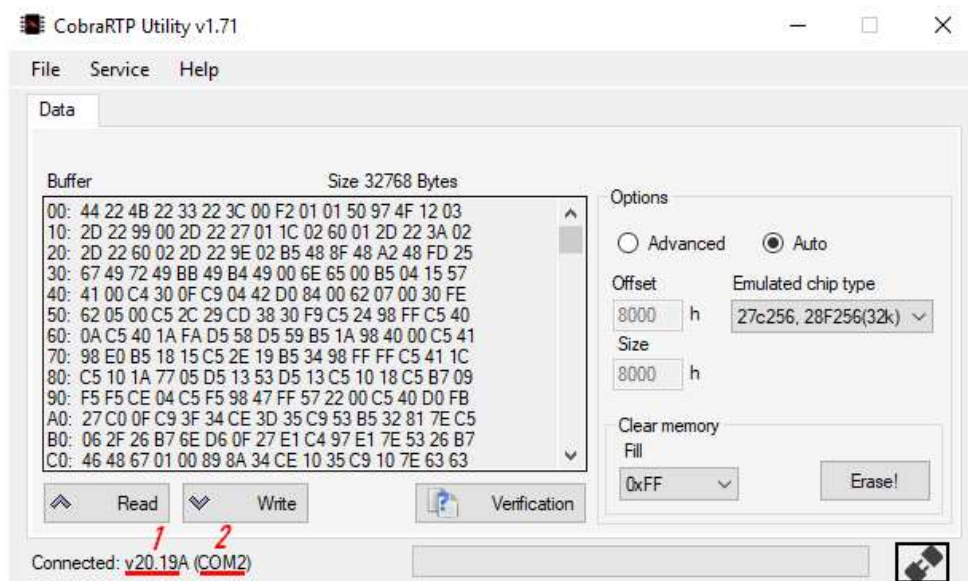
Use

Connect

Before any actions in the **CobraRTP Utility**, you must connect to the emulator. To do this, you must physically connect the **CobraRTP** to a PC using a **USB cable** or via **Bluetooth**, then open the **CobraRTP Utility** and click the connect button:



Upon successful detection and connection with the emulator, the Status Bar will display information about the **CobraRTP firmware version**, the number of the **COM-port** on which the emulator is found, as well as the main operations buttons with the emulator will become active:



1. – emulator software version.
2. – number of the active (used) COM-port (for emulation).

Functions with files

Read

This is the process of loading the firmware from the emulator's memory into the program buffer, according to the corresponding offset and firmware size options.

Write

This is the process of writing the contents of the program's buffer into the emulator's memory, according to the corresponding offset and firmware size options.

Verification

The contents of the emulator buffer and memory are checked for identity, according to the corresponding option settings.

It should be clarified that the offset option does not affect the buffer, that is, the contents of the buffer will be checked first, namely from 0 (zero) address of the buffer (column of values on the left).

Interface description

Buffer

Displays information in hexadecimal format (HEX) of the currently open (loaded) firmware.

File

Basic functions for working with files on disk (Open / Save).

Service

This menu item contains tabs:

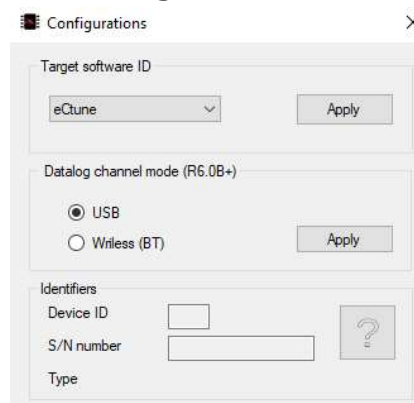
"Configurations" - basic device settings and viewing information;

"Address watch" is a utility for scanning the address bus, i.e. tracking the addresses at which the ECU processor accesses a given address range (memory area);

"Analog In" - testing the analog inputs of the device (if available);

"Update emulator" - updating the emulator software (see cobrartp.com/downloads),
"Test" - checking the emulator hardware is working properly;
"Language" - change the interface language.

Configurations tab



Here you can change the ID of the target software, i.e., **the ID must correspond to the software being used as an editor, with which CobraRTP will work in RTP mode (emulation).**

To install, you need to save the ID in the emulator memory at the same time by selecting the software in the drop-down list and clicking the Save button, after which a message will appear indicating that the target software ID has been successfully changed.

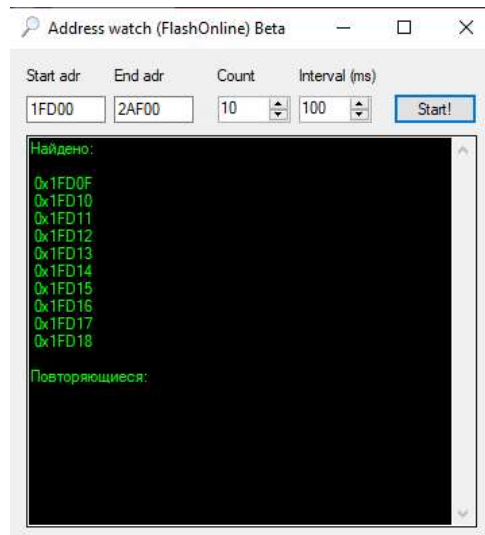
If you use an editor that is not listed, and download the firmware via the CobraRTP Utility, then the ID value of the target software can be anything.

Datalog channel - switching the interface for the datalog channel CobraRTP Honda Edition of board revisions R6.XB - R7 +.

Also in this tab you can check the unique serial number of your emulator by clicking on the button with the question mark (?).

«Address watch»

Bus address scan function, i.e. tracking the addresses at which the ECU processor accesses a given address range (memory area). Works on the principle of the table trace function in TunerPRO RT. At the time of v2.8, it is only available for FlashOnline.



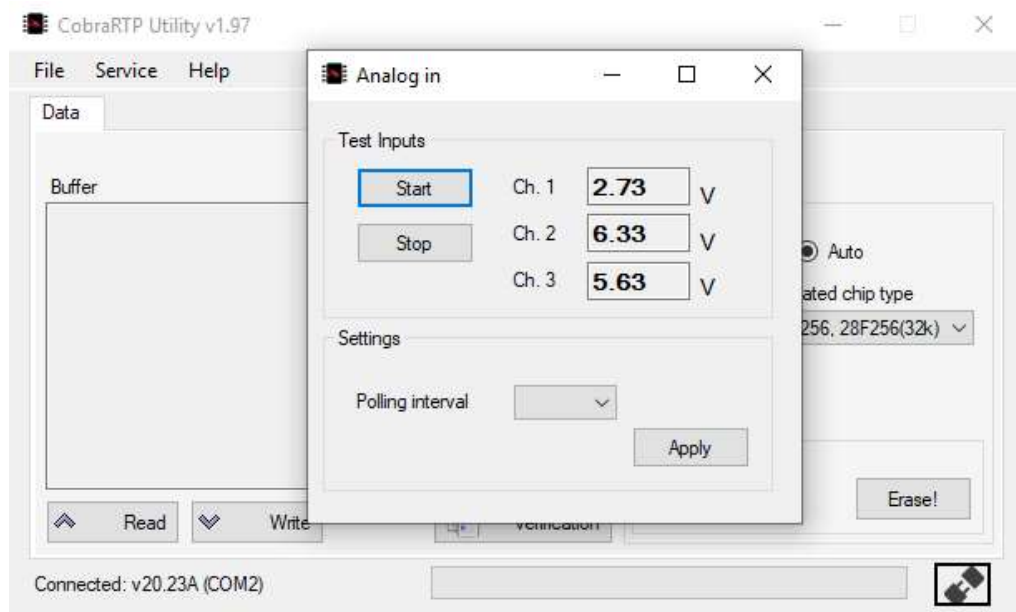
Start adr - starting address of the scan range in HEX

End adr - end address of the scan range in HEX

Count - number of scanner requests

Interval - the period of scan requests. Those. For the case as in the image, this is 10 X 100ms = about 1 second total scan time.

"Analog in" tab



Here you can test the analog inputs of the device and change the polling interval, which affects the speed and can correspond to 70, 130, 300 ms.

"Test"

This tab contains functions for device self-test. The description is available in the tab interface.

Help

Basic information about the program and checking for software updates.

Options

1. Offset - sets the starting address for Read and Write operations.

Example:

For operations with 32KB firmware (chips XXX256), set the value 8000. For 64KB (chips XXX512) value 0.

2. Size - sets the size of the firmware for read and write operations.

Example:

For operations with 32KB firmware (XXX256 chips), set the value to 8000. For 64KB (XXX512 chips), set the value to 10000.

3. Emulated ROM type - automatically sets the required offset and size values in accordance with the selected ROM type.

4. Erase - clears the emulator memory.

5. Fill - fills the emulator memory when erasing with the values selected in the drop-down pen.

6. Auto - the mode of auto-selection of settings depending on the selected type of ROM.

Live scan - is a powerful feature that monitors an open file for changes and automatically downloads changes to the emulator in real time, i.e. after saving (overwriting) the file in another software (for example WinOLS).

Memory block - selection of a FlashOnline memory block into which files will be loaded in CobraRTP Utility, as well as for selecting a block in the emulator (Dual-Mod), respectively.

Encoding – data conversion for ECU with non-standard connection of flash memory (ROM) to the processor. These ECUs include: 5WY (SIMK31/41/42/43), EMS2000, EMS3132, MS5150, Sirius32/34; 5WK (SMG2), Simos 3, etc. Data processing is done on the emulator side, so you can also use TunerPRO RT. The selected encoding is stored in the permanent memory of the emulator.

Note: if you are using an unencoded file (original flash memory dump suitable for editing), then the use of an appropriate encoding is necessary, otherwise the ECU processor will incorrectly interpret the data from the emulator, i.e. the ECU will not work.

Update of device

To do this, you need to establish a connection and go to the **Service -> Update -> Open upd** menu, select the appropriate update file(*.upd) and click the **Update!** button, wait for the update to complete successfully, and then you can use the emulator.

