EDC15P SUITE MANUAL

TABLE OF CONTENTS

PURPOSE AND SCOPE

By using this document users are assured to use the correct functionality of the software. The information from this document should be followed as stated and compared with expected output from the software.

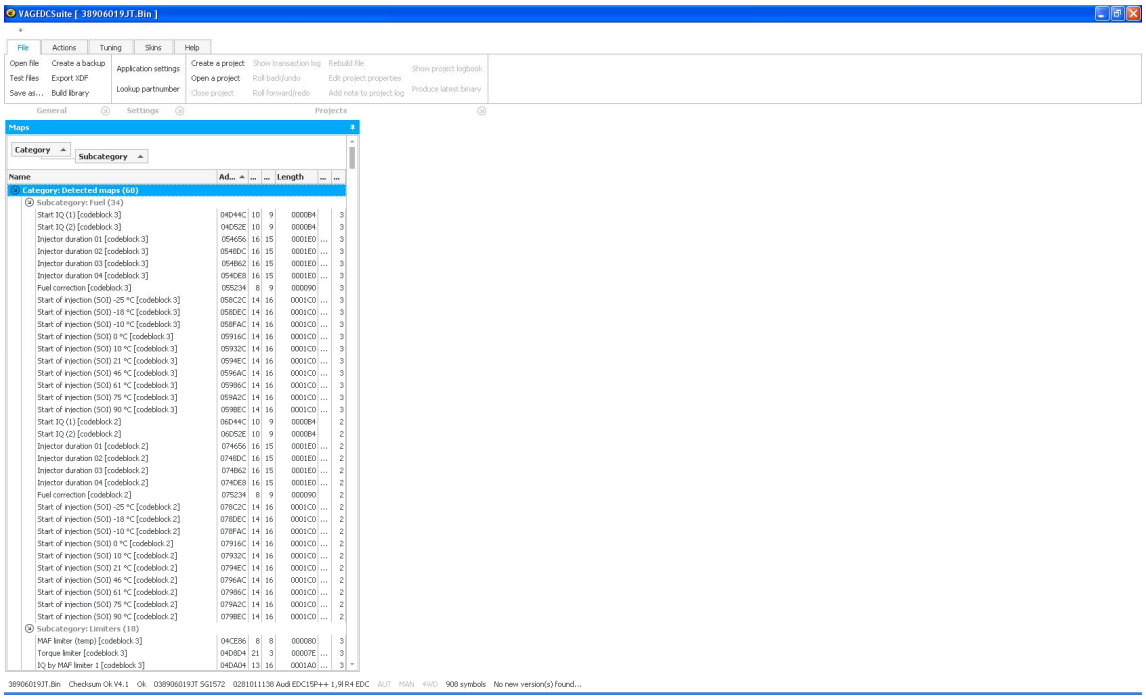
REFERENCES

This section references, by identity and title, documents that facts in this document depend upon. Those documents are not necessarily the latest version.

Document	Title	Rev
VAG EDC15P.docx	VAG EDC15P	1.00

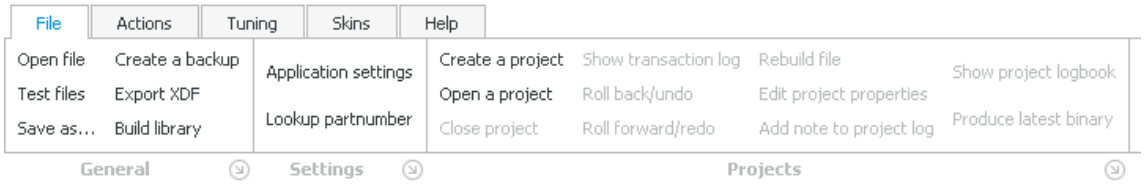
GENERAL INFORMATION

Thank you for downloading and installing VAG EDC15P Suite. In this manual you will find an overview of the most commonly used functions. After starting VAGEDC15P Suite a splash screen will be displayed and after all components are loaded and the application is initialized the main screen will be displayed.



The top menu is a ribbon style menu also found in the latest Microsoft Office environments. It allows you to navigate through the available options quickly and easily. This first chapter will show you around the available options one by one.

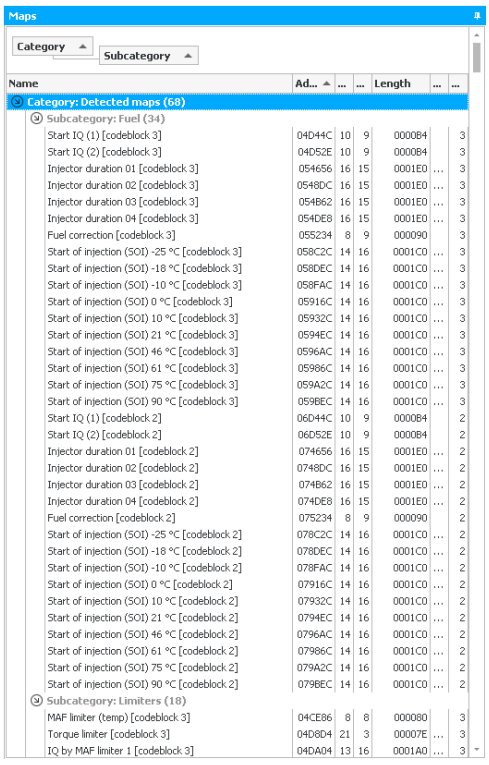
FILE MENU



GENERAL – OPEN FILE

This option allows you to open a binary file. VAGEDC15P Suite will automatically extract all the relevant information from the file after selecting it in the open file dialog.

Once the file is opened and all information is extracted the symbol list on the left hand side of the main screen will be filled with information.



General – Save as

This lets you choose a different location and/or filename for the binary file you currently have open.

General – Create a backup

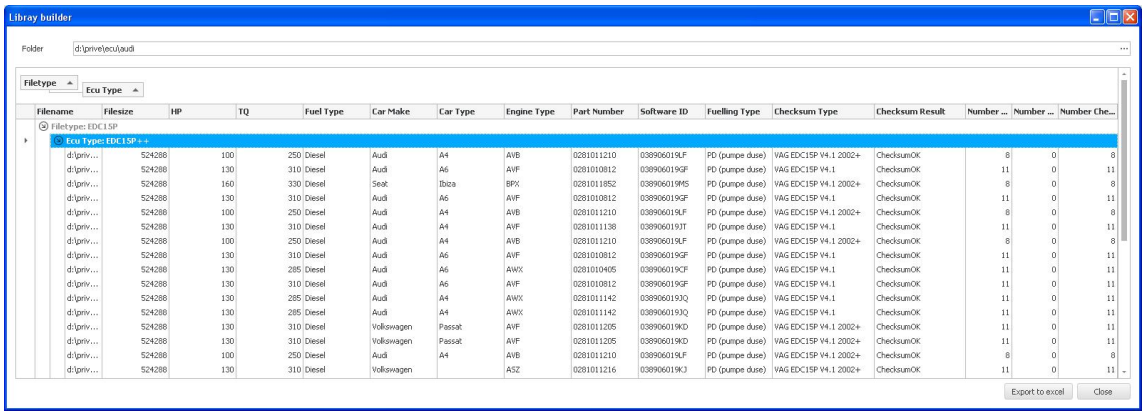
Lets you create a backup file for the binary at this point. It is wise to create backups before you start to make big changes to your file. If a project is opened, the backup file will be stored within the project folder otherwise it will be stored in the folder where the bin file is located.

General – Export XDF

Writes a XDF (tunerpro definition file) from the currently opened file. Experimental!

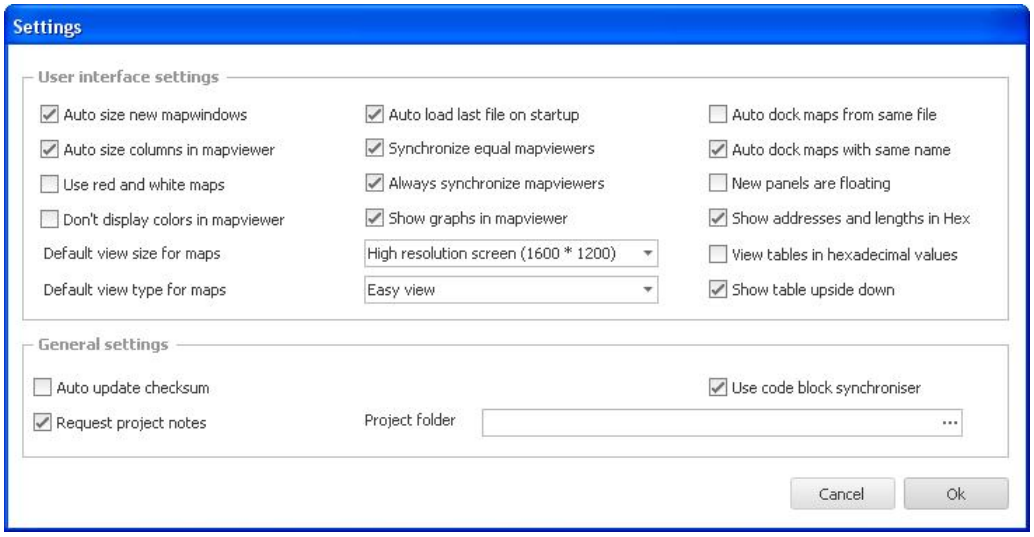
General – Build library

Lets you parse an entire directory including subdirectories for binary files and have the software try to identify the files it finds. It shows a gridview with all identified files and lets you export this data to excel.



Settings – Application settings

This will show the options screen for VAGEDC15P Suite.



Settings – Application settings – Auto size new mapwindows

Determines whether or not new map windows will automatically be resized to fit their respective contents.

Settings – Application settings – Auto size columns in mapviewer

Determines whether or not the map viewers should try to resize the columns they contain to make the content fit. As you can imagine ignition advance for example expressed in whole and fractional degrees takes more space than a simple decimal number ranging from 0-10.

Settings – Application settings – Use red and white maps

Obsolete.

Settings – Application settings – Don't display colors in mapviewer

Obsolete.

Settings – Application settings – Auto load last file on startup

If you work on one file for a prolonged period of time you might want VAGEDC15P Suite to reopen the last file automatically when you start it. This option allows you to control that behaviour. If the last opened item was a project, VAGEDC15P Suite will automatically reopen that project for you at start-up.

Settings – Application settings – Synchronize equal mapviewers

With this enabled, VAGEDC15P Suite will try to keep multiple opened mapviewers with the same map displayed synchronized with eachother. Cell selections, graph rotation etc will be done in all open mapviewers.

Settings – Application settings – Always synchronize mapviewers

With this enabled, VAGEDC15P Suite will try to keep all opened mapviewers synchronized with eachother. Cell selections, graph rotation etc will be done in all open mapviewers.

Settings – Application settings – Show graphs in mapviewer

To gain performance in lightweight computers you can switch off the graphical display in the mapviewer altogether with this option.

Settings – Application settings – Auto dock maps from same file

If you open more than one map from the same file (for example fuel and ignition maps) you can choose to have those docked together using this option. If the option is turned off, windows will be tiled next to each other.

Settings – Application settings – Auto dock maps with same name

If you open the same maps from different files (for example the main ignition map from 2 files) you can choose to have those docked together using this option. If the option is turned off, windows will be tiled next to each other.

Settings – Application settings – New panels are floating

Upon opening a new mapviewer you can choose to have this window docked in the main screen or have it floating.

Settings – Application settings – Show addresses and lengths in hex

VAGEDC15P Suite can display addresses and lengths of symbols in decimal form or in hexadecimal form. This option allows you to switch between the two.

Settings – Application settings – SHow tables upside down

For users that prefer to flip the maps the way winOLS displays them.

Settings – Application settings – Default view size for maps

Allows you to adjust the map viewers size for different screen resolutions.

Settings – Application settings – Default view type for maps

Easy view is best if you don't know what this means ;)

Settings – Application settings – Auto update checksum

Having this checked will rid you of the constant worry whether or not the checksum of your file is valid. We advise you to keep this turned on!

Settings – Application settings – Request a note on changes

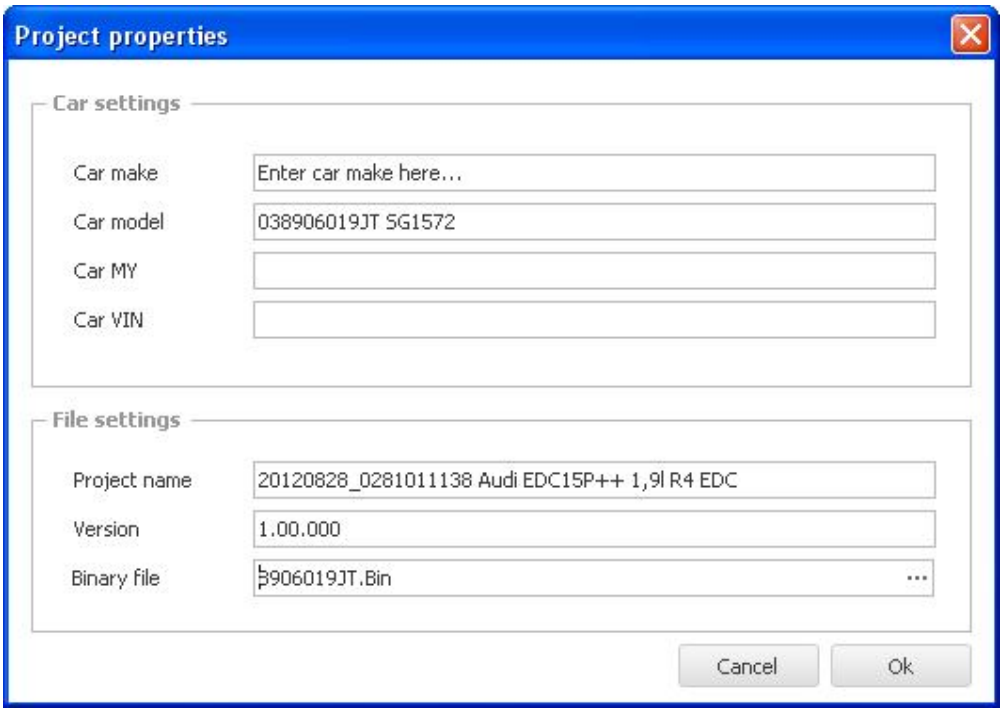
If you are working in a project you can have VAGEDC15P Suite ask you for a comment every time you make a change to one of the maps. This way, you can keep track of changes very easily.

Settings – Application settings – Project folder

Allows you to set an alternate project root folder for creating projects. You can use this if you want all the projects to be located on a separate disk partition for example.

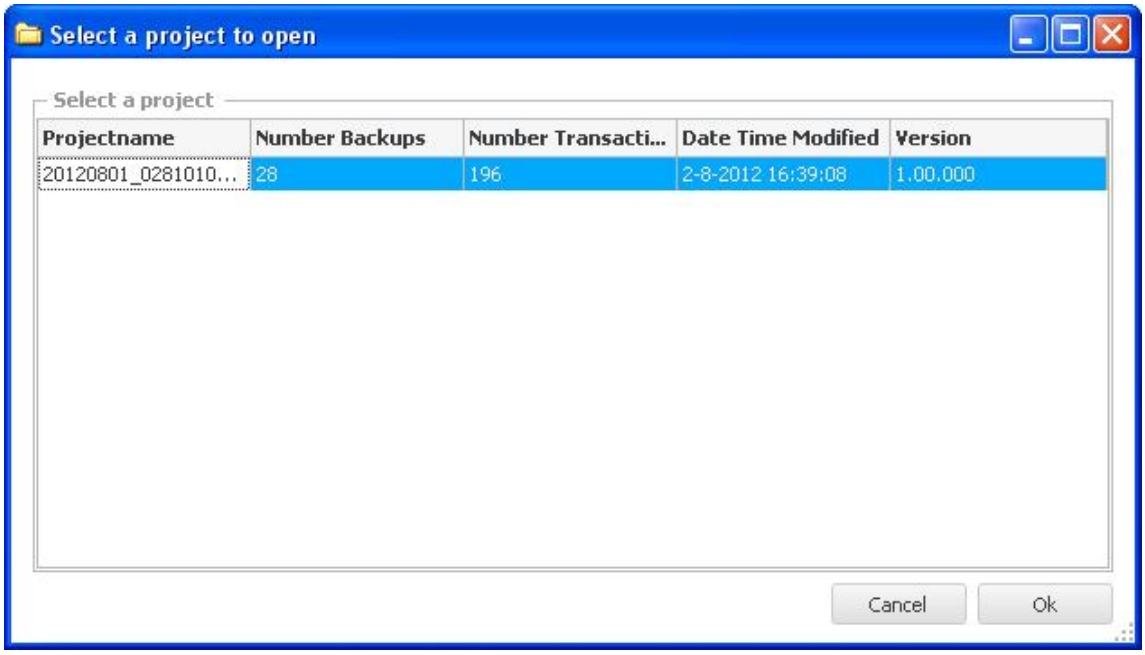
FILE – PROJECTS – CREATE A PROJECT

VAGEDC15P Suite allows you to work on your tune in a project based fashion. This option lets you create a new project. Projects have the advantage of having roll-back and roll-forward functions, having versioning and keeping things tidy and together. You are advised to work in a project if you do more than simple easy-tune your binary file.



FILE PROJECTS – OPEN A PROJECT

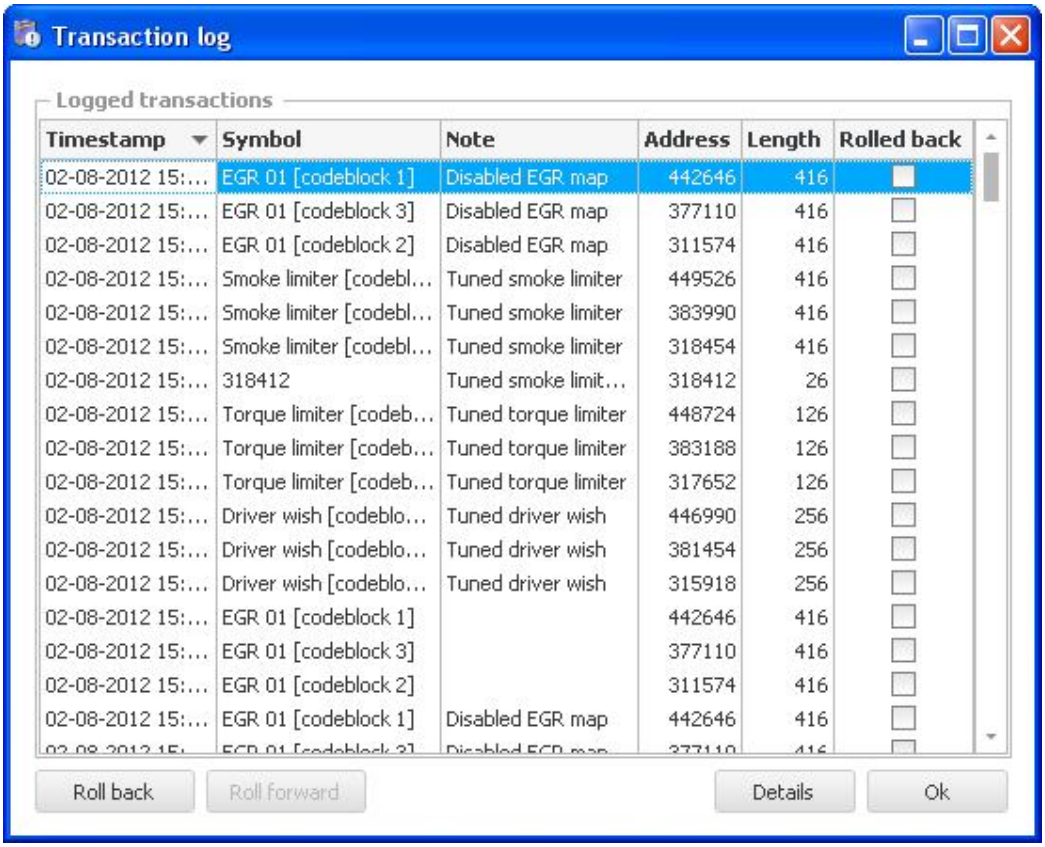
Lets you select and open a previously created project. If no projects are available (none were created before) VAGEDC15P Suite will notify you with a message box.



FILE PROJECTS – CLOSE PROJECT
Closed the project and allows you to work on single files again.

FILE PROJECTS – SHOW TRANSACTION LOG

Shows the transaction log for the current project. Since a project contains only one binary file, you could see this as an undo/redo list for the project binary file.



FILE PROJECTS – ROLL BACK/UNDO

Lets you rollback the last transaction made to the binary file. If no transactions are available to rollback, the button will be disabled.

FILE PROJECTS – ROLL FORWARD/REDO

Lets you roll forward (redo) the last transaction that was undone/rolled back. If no transaction are available to roll forward, the button will be disabled.

FILE PROJECTS – REBUILD FILE

This enables you to rebuild a project file (binary) up to a certain point in time. VAGEDC15P Suite will ask you

for a date and it will restore – if possible – the file that you had at that specific date.

FILE PROJECTS – EDIT PROJECT

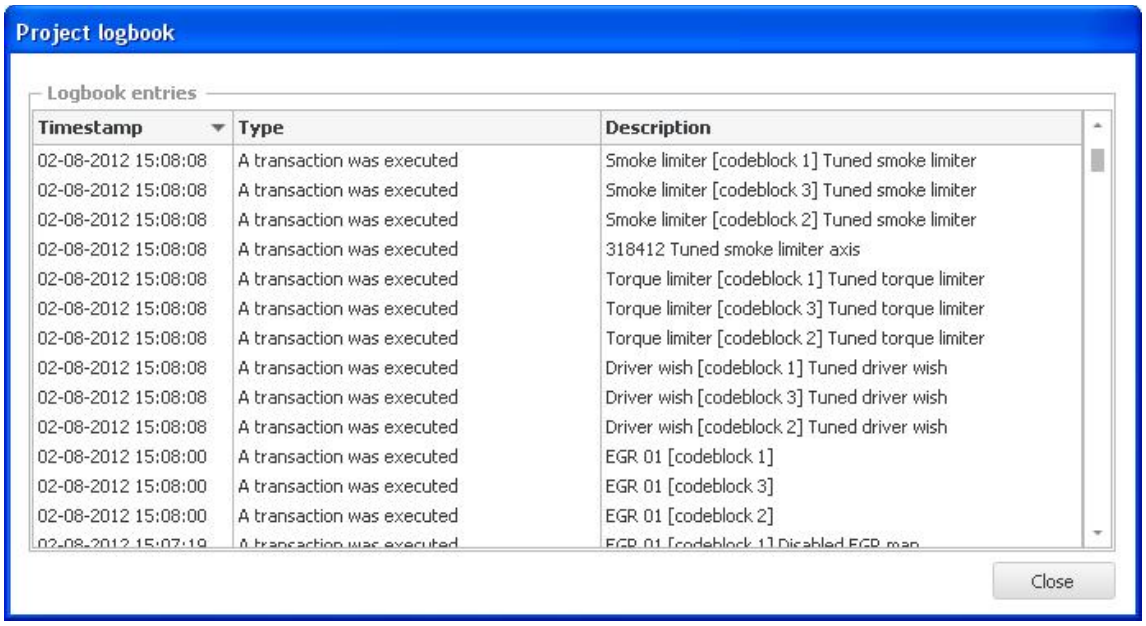
Lets you edit the project properties for any project. This enables you to manage your version numbering yourself. Version numbers are stored, together with all other project properties, in the xml file in the project folder.

FILE PROJECTS – ADD NOTE TO PROJECT

You can add a note to you project with a timestamp attached to it, so you can keep track of changes you made in your setup. For example, if you start using different injectors or mount a bigger intercooler, you can enter a note of this into the project log for later reference.

FILE PROJECTS – SHOW PROJECT LOGBOOK

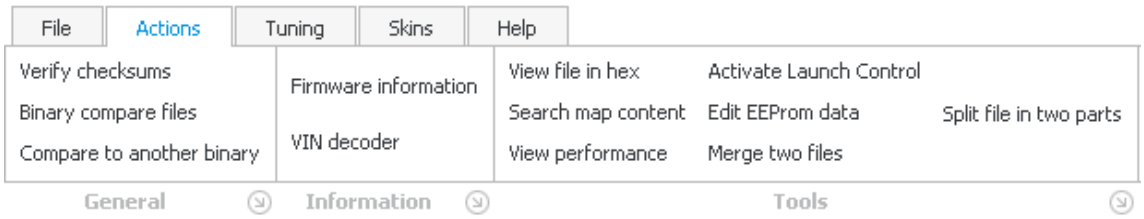
Shows you in details what has happened in your project.



FILE PROJECTS – PRODUCE LATEST BINARY

Lets you export the project binary in its current state so you can save it in another location easily.

ACTIONS MENU

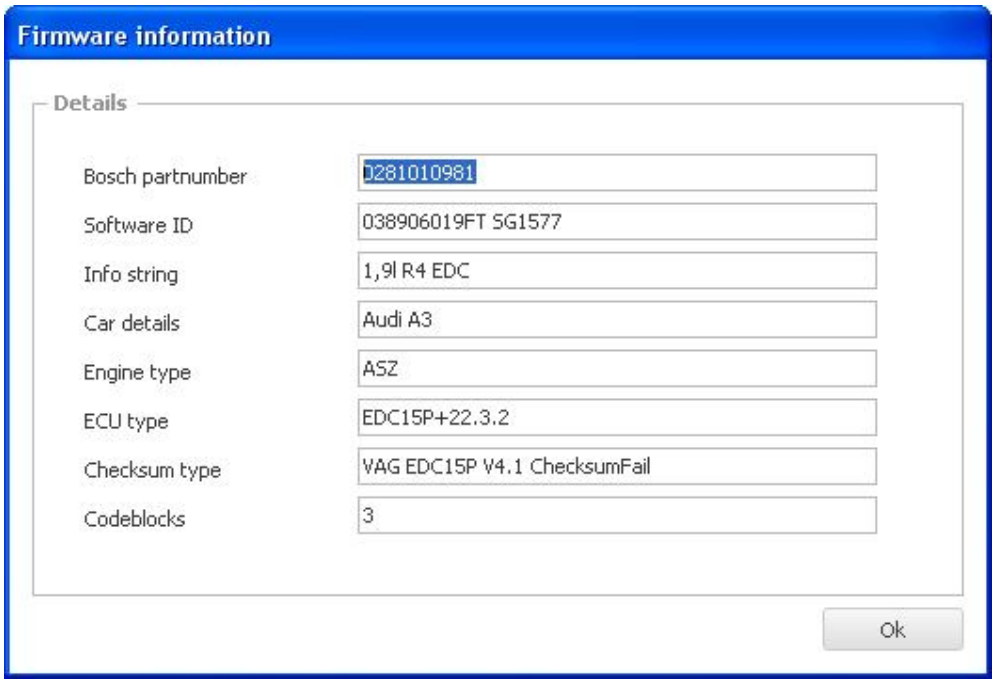


ACTIONS MENU – VERIFY CHECKSUMS

If you don't have the automatic checksum routine turned on, you can manually verify and correct the files checksum with this option. Incorrect checksums will generate a dialog screen asking you for intervention;

ACTIONS MENU – FIRMWARE INFORMATION

Lets you view the settings for the current binary file.

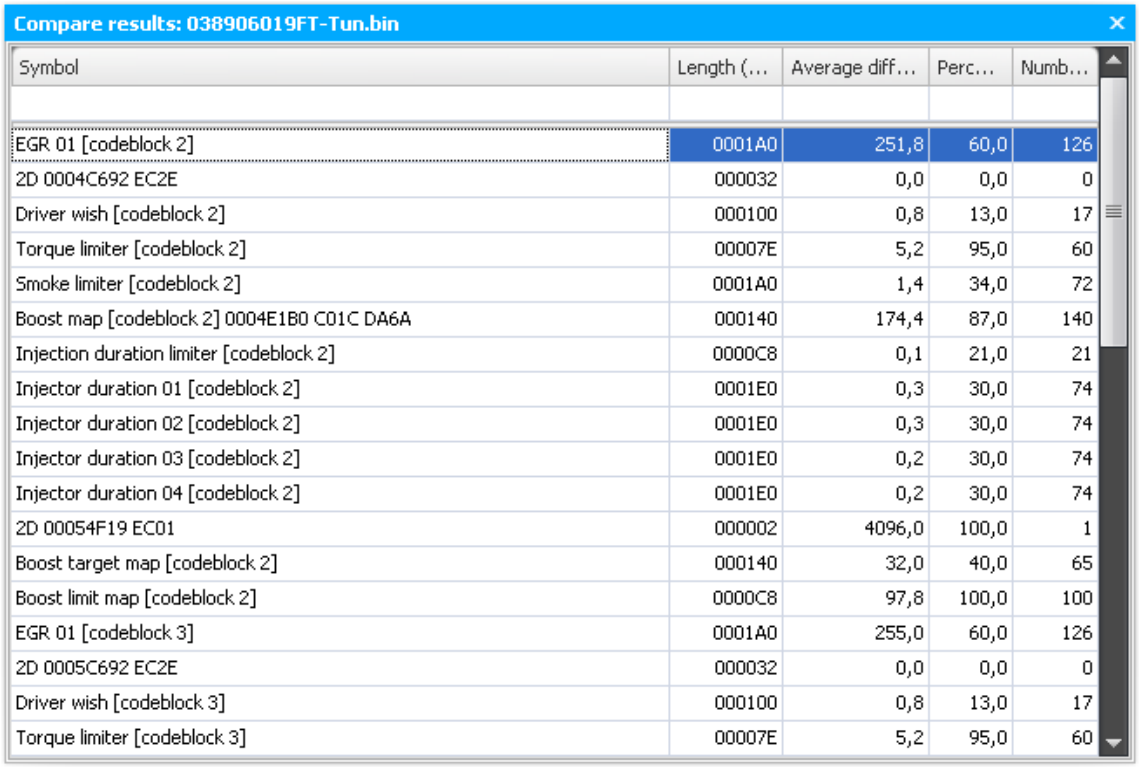


ACTIONS MENU – VIN DECODER

Lets you decode VAG VIN numbers into readable format.

ACTIONS MENU – COMPARE WITH ANOTHER BINARY

The most time-consuming thing is comparing maps for different firmware versions by hand. VAGEDC15P Suite gives you the tools to compare maps in different binaries with a click of the mouse. To do this you must first open the primary binary you want to compare. Then, select "Compare maps with other binary" from the Actions menu under Actions. Now, select the secondary binary you wish to compare the first one with. VAGEDC15P Suite will now display a list of symbols that differ in the selected binaries.



Compare results: 038906019FT-Tun.bin

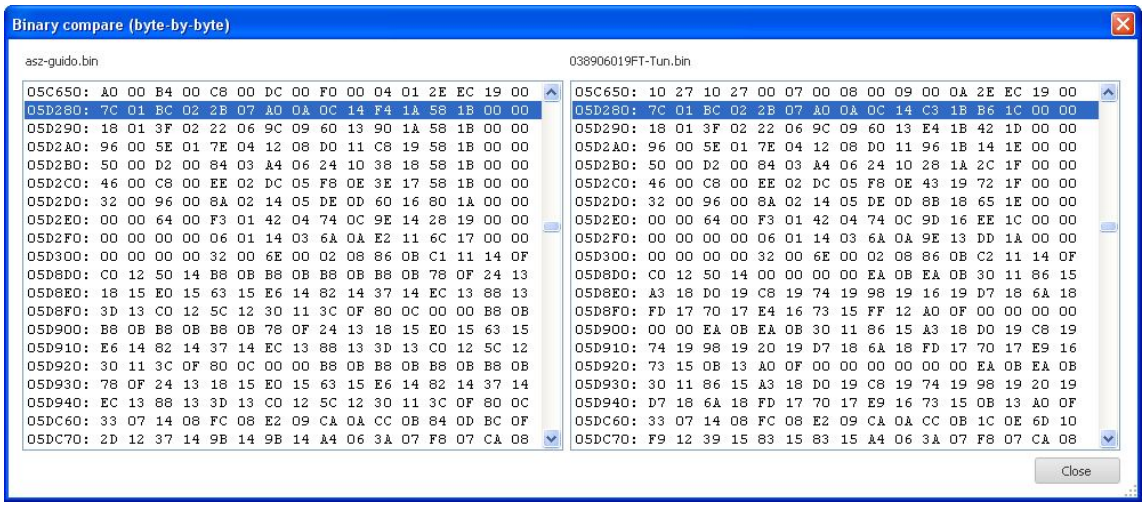
Symbol	Length (...	Average diff...	Perc...	Numb...
EGR 01 [codeblock 2]	0001A0	251,8	60,0	126
2D 0004C692 EC2E	000032	0,0	0,0	0
Driver wish [codeblock 2]	000100	0,8	13,0	17
Torque limiter [codeblock 2]	00007E	5,2	95,0	60
Smoke limiter [codeblock 2]	0001A0	1,4	34,0	72
Boost map [codeblock 2] 0004E1B0 C01C DA6A	000140	174,4	87,0	140
Injection duration limiter [codeblock 2]	0000C8	0,1	21,0	21
Injector duration 01 [codeblock 2]	0001E0	0,3	30,0	74
Injector duration 02 [codeblock 2]	0001E0	0,3	30,0	74
Injector duration 03 [codeblock 2]	0001E0	0,2	30,0	74
Injector duration 04 [codeblock 2]	0001E0	0,2	30,0	74
2D 00054F19 EC01	000002	4096,0	100,0	1
Boost target map [codeblock 2]	000140	32,0	40,0	65
Boost limit map [codeblock 2]	0000C8	97,8	100,0	100
EGR 01 [codeblock 3]	0001A0	255,0	60,0	126
2D 0005C692 EC2E	000032	0,0	0,0	0
Driver wish [codeblock 3]	000100	0,8	13,0	17
Torque limiter [codeblock 3]	00007E	5,2	95,0	60

ACTIONS MENU – BINARY COMPARE

Lets you do a binary (byte-by-byte) compare of two files. This is a good tool to verify whether a programming session was successful or not. Sequences of steps would be:

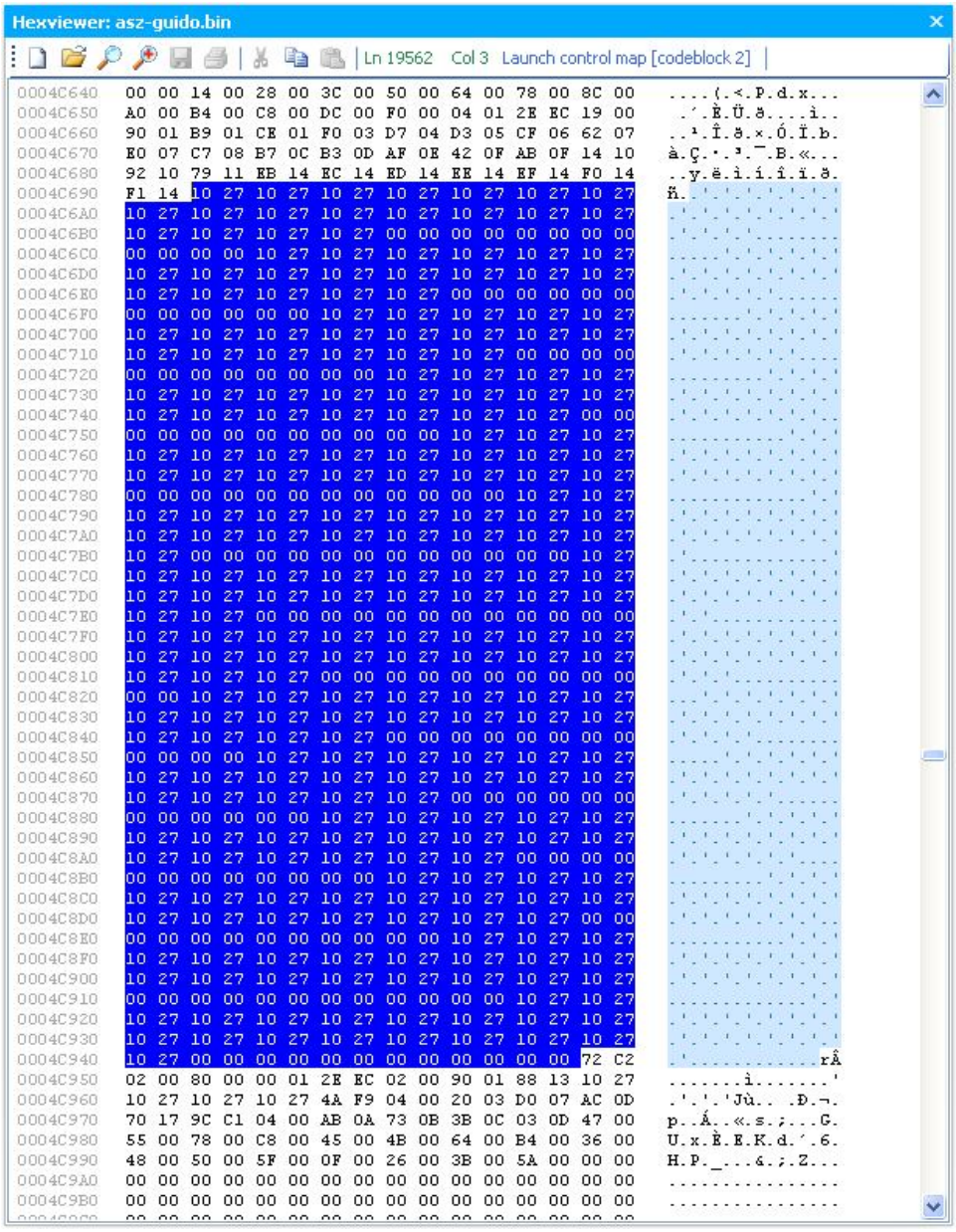
1. Program ECU
2. Read file from ECU
3. Compare original and downloaded file with Binary compare.

If the result screen is empty the files are identical (successful programming).



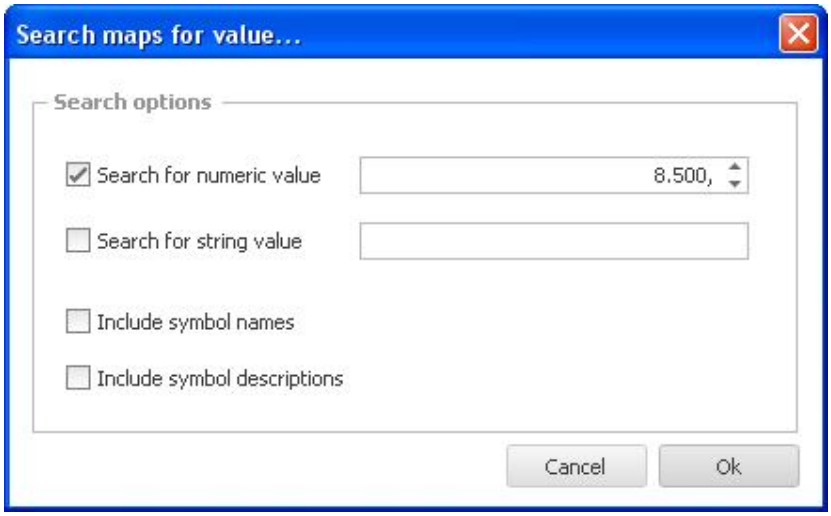
ACTIONS MENU – VIEW FILE IN HEX

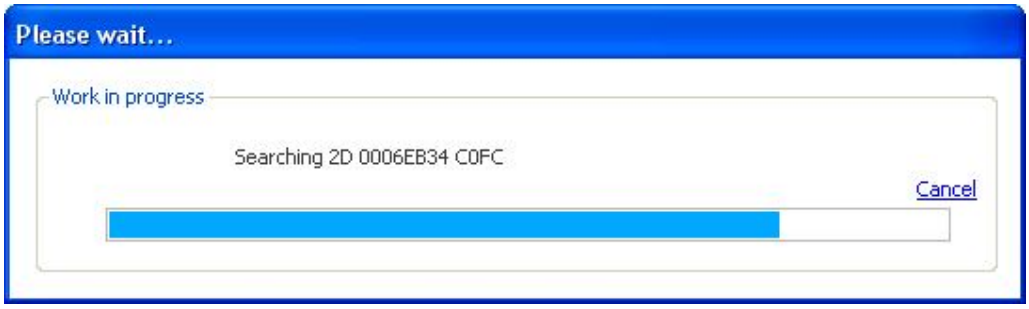
Lets you explore the binary file in hexadecimal form (advanced users!)

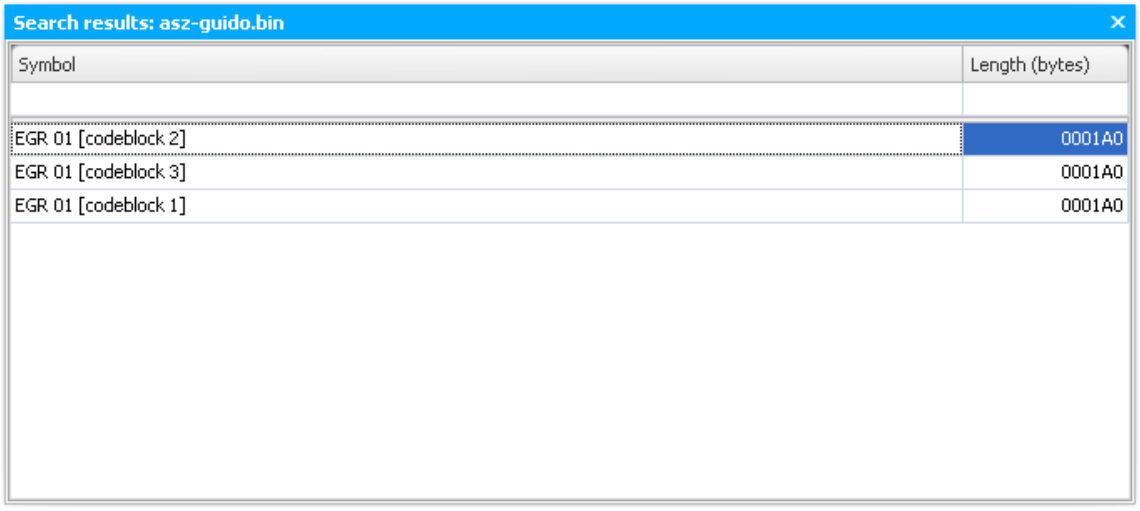


ACTIONS MENU – SEARCH MAP CONTENT

Allows you to search maps for a specific value. The result will be shown in a list.

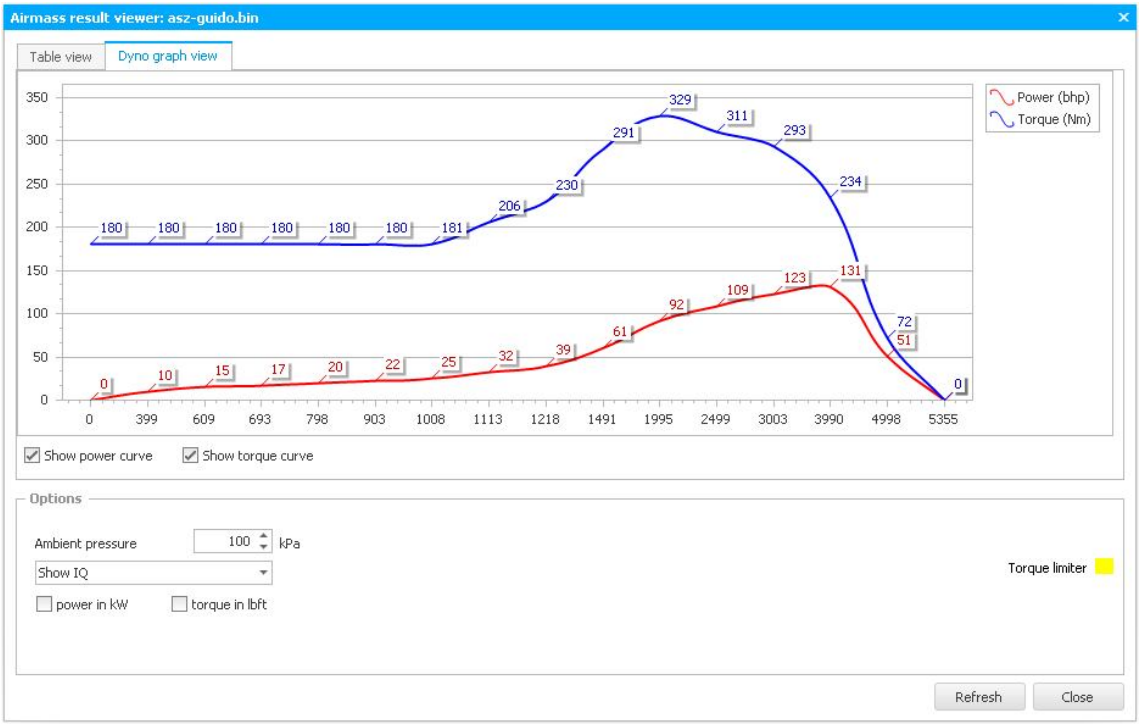






ACTIONS MENU – VIEW PERFORMANCE

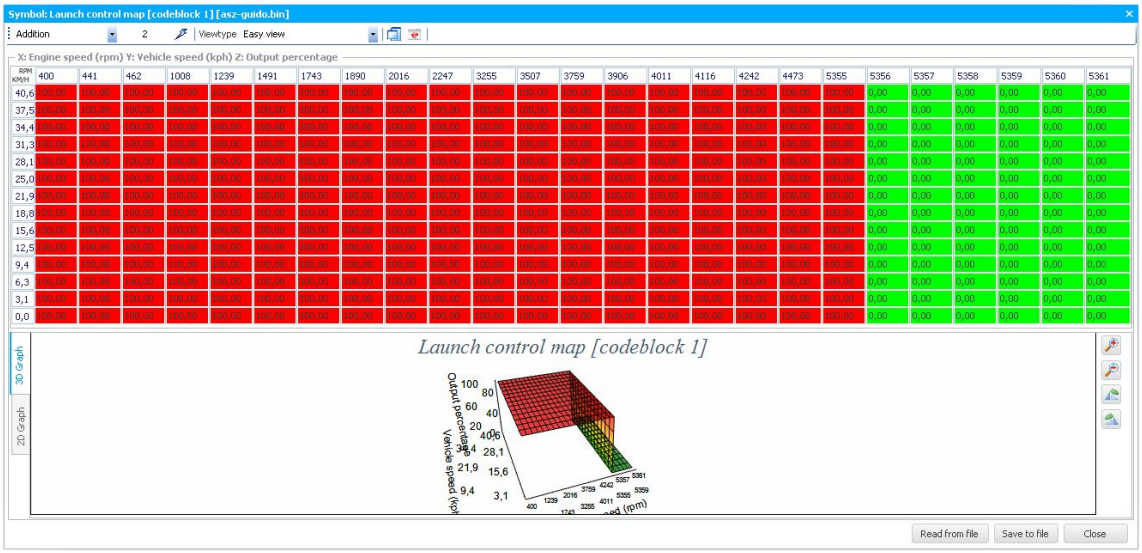
VAGEDC15P Suite incorporates a function to verify the final (estimated) performance results based on the most common airmass and torque limiters). The result from these calculations are shown in a table that also shows the limiter that is holding more airmass per combustion back.



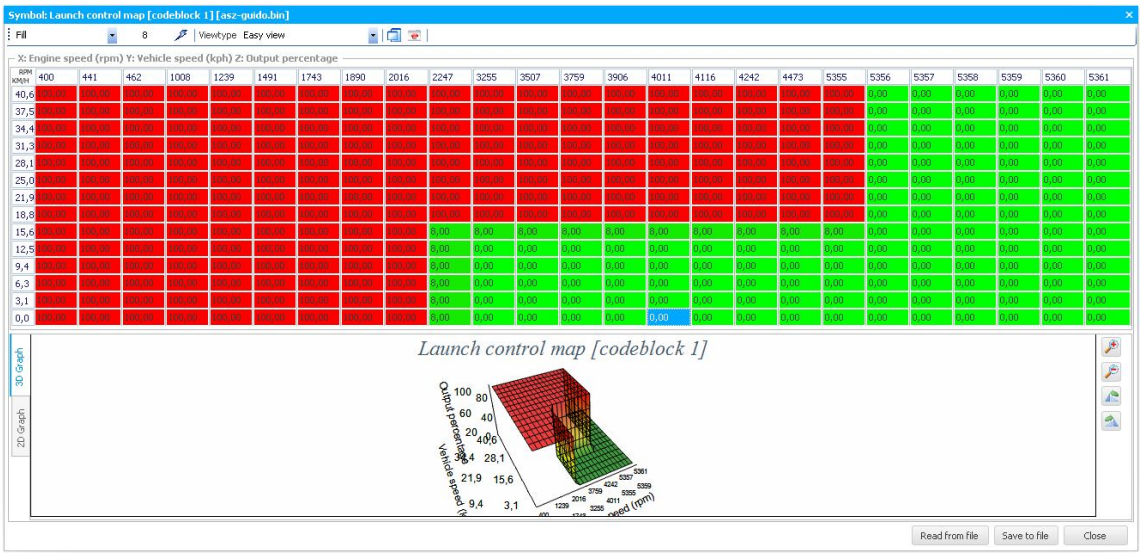
ACTIONS MENU – ACTIVATE LAUNCH CONTROL (EDC15P ONLY)

EDC15P firmware contains a "hidden" map that controls injection quantity (IQ) by gearbox/speed ratio and engine speed. We can build a launch control function with this map.

To make this map visible (the binary fill will be altered for this!) you can use this function. Please note that this will only generate the maps, not fill them for you. By default the map is set in such a way that launch control will not be activated.

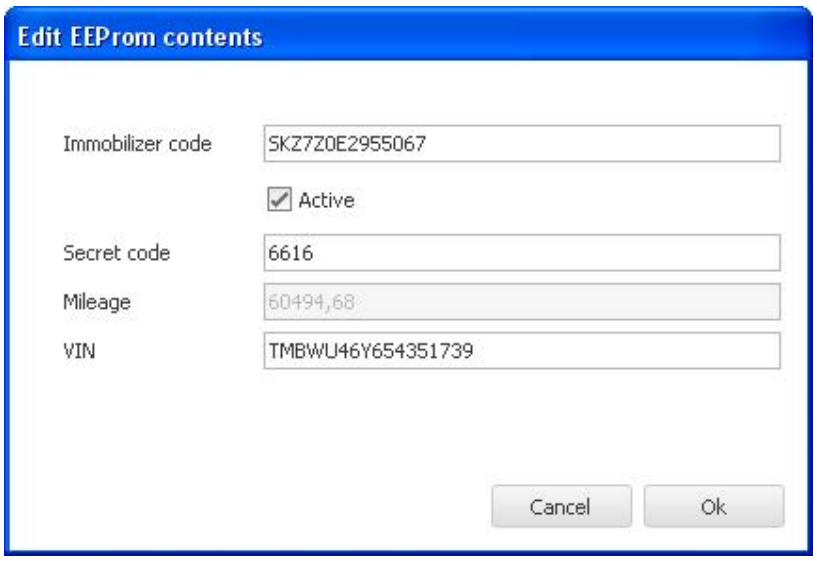


If you want launch control to be active, you need to set the map to your wishes. An example is given below.

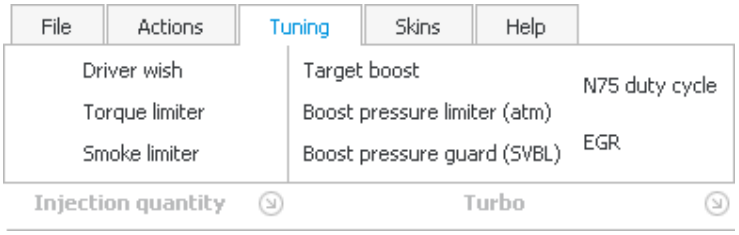


ACTIONS MENU – EDIT EEPROM

VAGEDC15P Suite incorporates a function to view and alter EEPROM contents once you've downloaded that from the ECU.



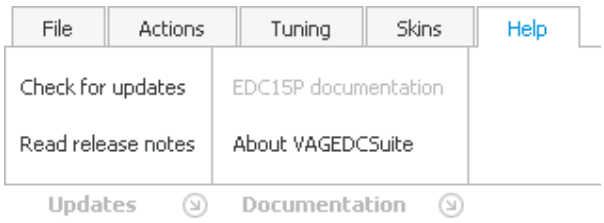
TUNING MENU



TUNING MENU – *

Lets you directly start a mapviewer with the specific map for quick access to the most imporant maps.

HELP MENU


File
Actions
Tuning
Skins
Help
Check for updates
Read release notes
EDC15P documentation
About VAGEDCSuite
Updates
Documentation

SELECTING SYMBOLS

After the symbol list has been displayed you can choose a symbol from the list by double clicking it or by highlighting it and pressing <enter>. Whenever you do this a new panel is shown with the detailled information about the symbol in question.

This panel will look something like in *Image 3*.

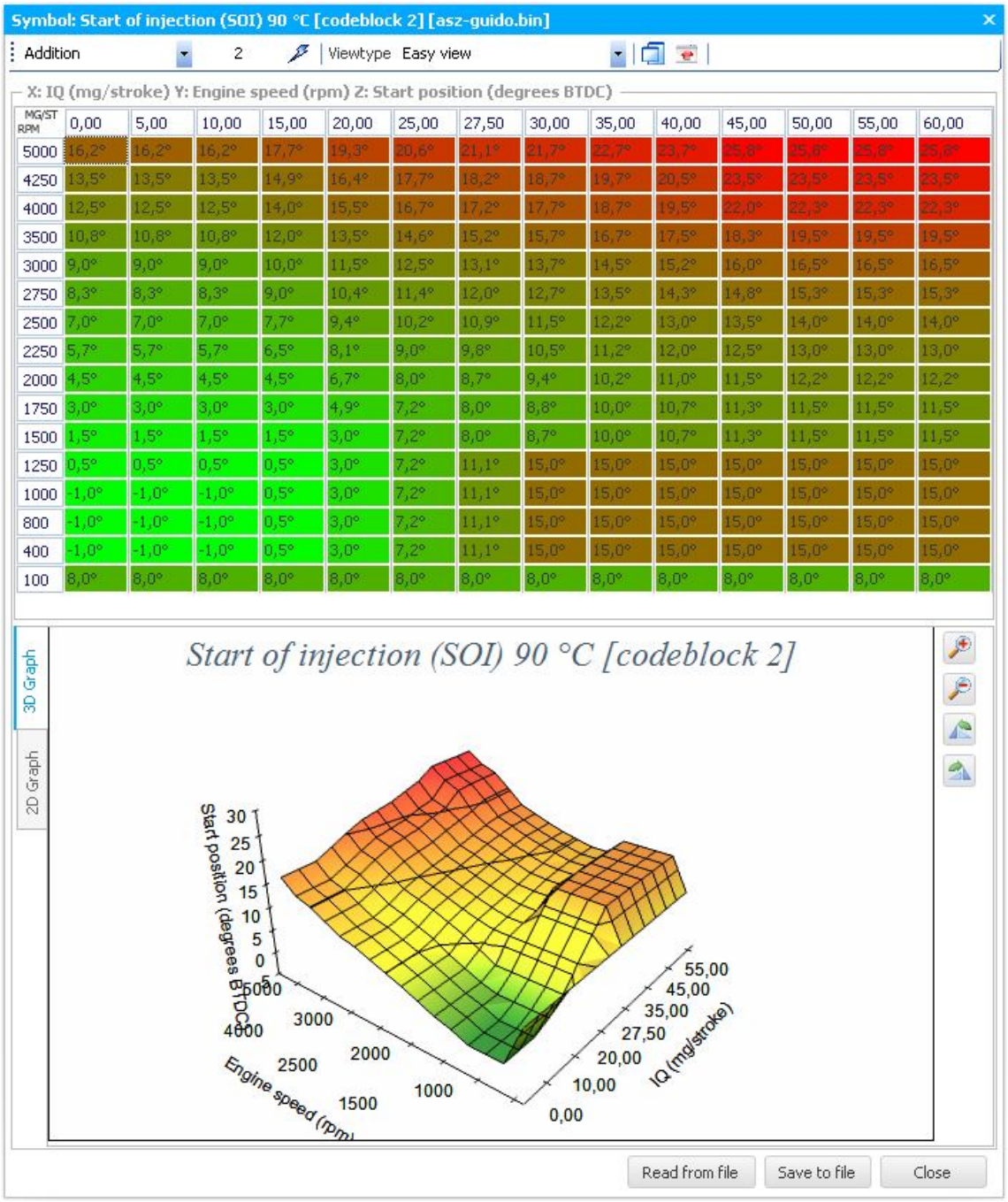


IMAGE 1: SYMBOL DISPLAYED IN EDITOR

SEARCHING FOR INFORMATION IN THE VIEWS

The used data viewers all support something called "incremental searching". If you select a value in one of the views and start typing the name or address you are looking for the view will automatically scroll to the given entry (best match). You normally should have the column you are searching in as the primary sort column. To do this just click on the columnheader of the column in question.

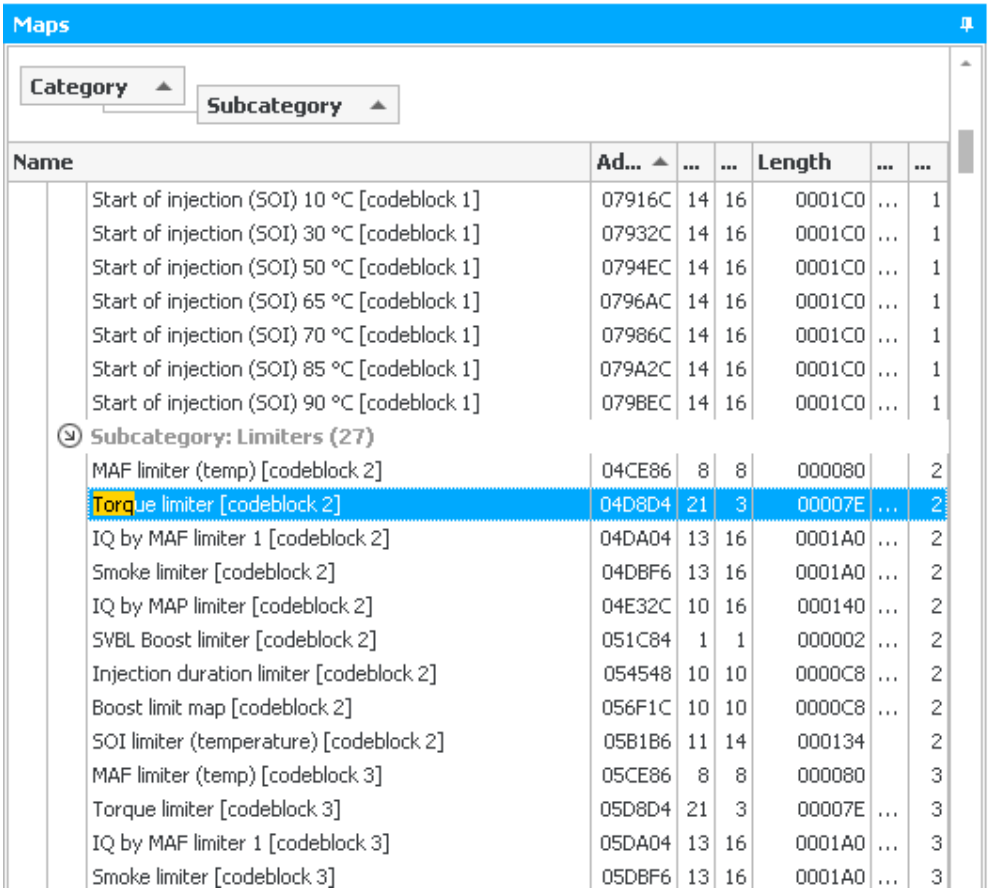


IMAGE 2: INCREMENTAL SEARCH IN ACTION

FILTERING INFORMATION

You can easily filter information in the views by selecting the little filter image in the column header and choosing one of the options. The most elaborate filters can be defined in "custom" of course. Here's a sample.

IMAGE 3: CUSTOM FILTER

SORTING INFORMATION

Information can be sorted ascending or descending by clicking the column header you want to sort on.

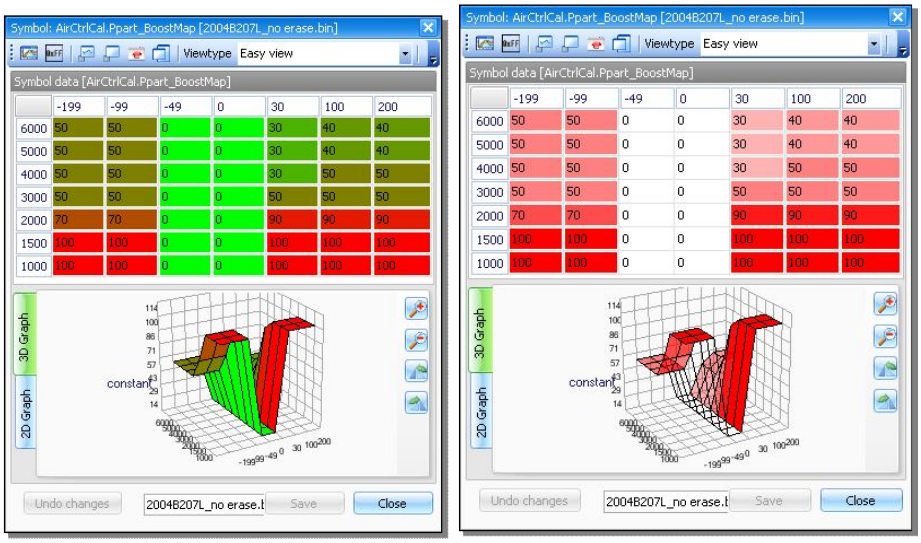
EDITING MAPS

HEXADECIMAL MODE

When you select "View tables in Hex" in the ribbon menu under Actions, Options all maps will be displayed in hexadecimal values. If you don't really know how to interpret hexadecimal number, you can also switch do decimal mode by unchecking the "View tables in Hex" option. This setting will be stored and retrieved the next time the application is started. In the images below you can see the difference of viewing in hex or in decimal format.

COLOR INDICATORS

You can adjust how the maps are displayed to some extend. By default all maps will be displayed having color from green (low values) to red (high values). If you find this confusing you can check the "Show red and white maps" option in Actions, Options and the maps will be displayed using red only. In the images below you can see the difference in viewing in red&green and red&white.


Symbol: AirCtrlCal.Ppart_BoostMap [2004B207L_no erase.bin]
Viewtype Easy view
Symbol data [AirCtrlCal.Ppart_BoostMap]
-199 -99 -49 0 30 100 200
6000 50 50 0 0 30 40 40
5000 50 50 0 0 30 40 40
4000 50 50 0 0 30 50 50
3000 50 50 0 0 50 50 50
2000 70 70 0 0 90 90 90
1500 100 100 0 0 100 100 100
1000 100 100 0 0 100 100 100
3D Graph
2D Graph
constant
Undo changes
2004B207L_no erase.b
Save
Close

ADJUSTING VALUES IN A MAP

To avoid that you have to adjust all values of a "large" map manually some features have been added to the mapeditor.

Plus key: adds 1 to all selected cells

Minus key: substracts 1 from all selected cells

PageUp key: adds 10 to all selected cells

PageDown key: substracts 10 from all selected cells

Home key: sets all selected cells to the maximal value

End key: sets all selected cells to the minimal values

To be able to get your work done faster you can selected one or more cells in a table and copy them to the clipboard by rightclicking and selecting "Copy selected cells".

To paste the cells select the location where you want to cells to appear – this could be in another map and even in another binary – rightclick and select "paste selected cells" and then "At original position" or "At currently selected location".