# Testing Notes for Ralliart GST Base Map v3.1

Document Revision 2

## LIABILITY NOTICE

You assume ALL responsibility for the integrity of your ECU and engine management, vehicle safety, etc. If you are not confident in the procedures/data involved, do not make *any change* to your vehicle ECU's ROM image.

## SAFETY NOTICE

It is important to testing any engine management change in a safe and thorough manner.

# Logging via EvoScan

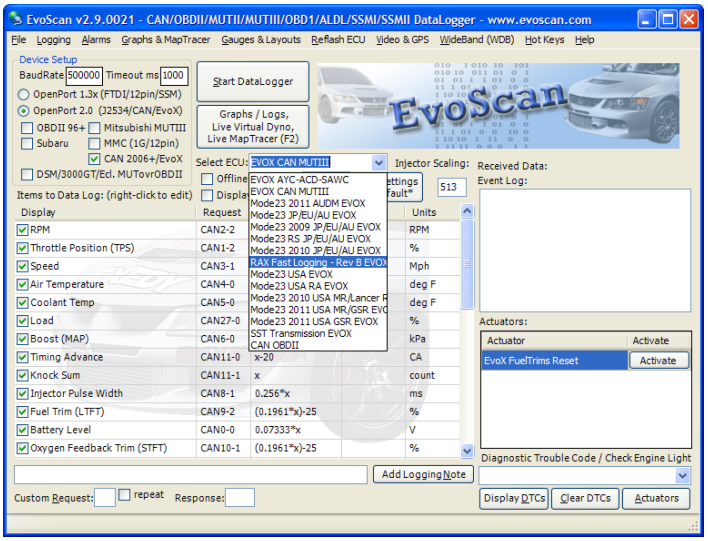
The v31 Base Maps come with the **RAX Fast Logging** patch applied.

To use…

Start EvoScan. Ensure the following are selected:

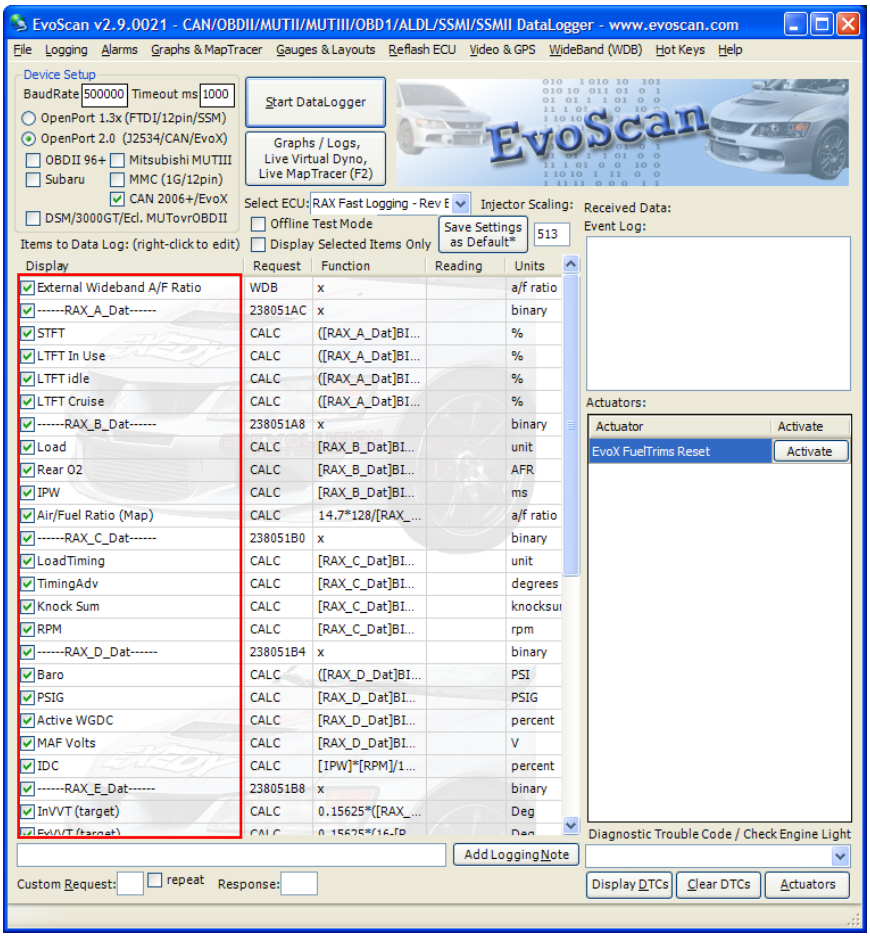
- OpenPort 2.0 (J2534/CAN/EvoX)
- CAN 2006+/EvoX

Under *Select ECU*, choose the **RAX Fast Logging** option:




*If your version does not have this option, please upgrade it to 2.9.0023 or later.*

Under *Items to Data Log*, tick every item from top to bottom (including the "External Wideband A/F Ratio" item, if you use a serial link wideband):



# Testing Approach

DO NOT PERFORM FULL-THROTTLE TESTING UNTIL YOU HAVE VERIFIED CORRECT ECU OPERATION IN PART-THROTTLE TESTS

ALWAYS OBEY THE RULES OF THE ROAD – DRIVE SAFELY

## Initial Testing - Part Throttle Driving

It is possible to check most of the new Base Map functionality without using *Wide-Open-Throttle* (WOT). A short drive at part-throttle will verify that much of the new ROM processing is operating correctly.

Collect log files from EvoScan, and submit them for review (eg. upload logs as attachments to a posting in the EvolutionM "GST Base Map" thread, or via email).

Once confirmation is received that logs show correct operation, you may proceed to **Limited WOT Testing**.

## Limited Wide-Open-Throttle Testing

This test will verify correct operation of boost control during initial throttle application, and on SST upshift.

When rolling in 2$^{nd}$ gear *off-throttle*, wait until engine speed drops to approx. 2000rpm, and then apply full throttle. Shift into 3$^{rd}$ gear around 6500rpm, and stay on throttle for 1-2 seconds after completion of the upshift. Then reduce throttle. The test is complete.

Collect log files from EvoScan, and submit them for review (eg. upload logs as attachments to a posting in the EvolutionM "GST Base Map" thread, or via email).

Once confirmation is received that logs show correct operation, you may proceed to **General Test Driving**.

## General Test Driving

You are now clear to test out the Base Maps in a variety of driving conditions.

It is recommended that you continue to log via EvoScan while performing general test-driving.

You can review logs yourself at any time (eg. to check AFR, boost, confirm that **knocksum** does not show counts of 3+).