

## **EFILive beta V7.5.4 (Build 63)**

### **New Features**

- Updated LBZ and LMM calibration definitions.
- Updated LBZ and LMM DMA PIDs.

### **Bug Fixes**

- Removed the “No Description Available” message that was displayed on DTC lists that were showing a valid description.
- Fixed DTC display on PC so that modules that do not reply (compared with modules that reply with no DTCs) are reported as “not replying”.
- Fixed LBA and LMM DTC retrieval.
- Changed the following PIDs from inHg to psi: SAE.MAP, SAE.BARO and GM.BARO. This change has been made to allow seamless integration of the tuning tool maps (indexed in psi) with the scan tool data.

### **Known Issues**

- The VE table for the E40 controller cannot be displayed in g/cyl or g/sec due to the axis on the VE table being swapped. (Fixing this is low priority).

## **EFILive\_Explorer beta V8.1.1 (Build 31)**

### **New Features**

- None.

### **Bug Fixes**

- None.

### **Known Issues**

- When programming a new boot block, a “successful” message may be displayed even when the boot block programming fails. Please double check the boot block firmware version and date after programming to ensure the new boot block was correctly programmed.
- Due to relaxed version checking during the beta test phase, no check is made to prevent programming V2.5.17 firmware into a FlashScan unit with V2.05.04 boot block. If you do that, the FlashScan unit will hang after displaying the splash screen. To recover, program the V2.05.15(0326) firmware back into the FlashScan device, then upgrade the boot block to V2.05.08, then program in the latest V2.05.17 firmware.
- Opening multiple copies of EFILive\_Explorer, then closing one of them will terminate EFILive\_Hapi, leaving the remaining EFILive\_Explorer processes hanging while waiting for a response from the non-existent EFILive\_Hapi process.

## **EFILive\_Hapi beta V8.1.1 (Build 31)**

### **New Features**

- None.

### **Bug Fixes**

- None.

### **Known Issues**

- None.

## **FlashScan/AutoCal beta V2.5.17(0622)**

### **New Features**

- Switchable tunes can now have an optional password assigned to them. Tunes cannot be switched unless the password is provided.

### **Bug Fixes**

- JAW wideband protocol correction.
- Prev/Next buttons in the AutoCal settings editor have been swapped. Prev/Up-Arrow decrements the setting, Next/Down-Arrow increments the setting. Compared to FlashScan which uses Left-Arrow to decrement and Right-Arrow to increment settings.
- Selecting cancel after entering the "Set date/time" screen no longer resets the date and time.
- Sleep mode no longer "forgets" PID selections.

### **Known Issues**

- None.

## EFILive beta V7.5.4 (Build 62)

### New Features

- Updated E38 calibrations.
- Updated E67 calibrations.
- Updated Allison 5 speed calibrations.
- Updated Allison 6 speed calibrations.
- Updated LMM/LBZ calibrations.
- Updated various boot loaders.
- EFILive\_Explorer.exe and EFILive\_Hapi.exe now reside in the \Program Files\EFILive\V8\Programs folder.
- Custom OS's 0129005 and 0202005 have been included in this update.

### Bug Fixes

- Allison transmission speedo calibrations updated to be compatible with speedo calculator.
- E40/E38/E67 RPM DVT scaling has been corrected.
- EFILive was failing to log data via AutoTap cables – fixed.
- Older format \*.efi files are now displayed correctly in the Scan Tool. Files such as the sample log files that ship with EFILive.
- Updated L52 speedo calibrations to match speedo calculator.

### Known Issues

- The VE table for the E40 controller cannot be displayed in g/cyl or g/sec due to the axis on the VE table being swapped. (Fixing this is low priority).

## EFILive\_Explorer beta V8.1.1 (Build 31)

### New Features

- None.

### Bug Fixes

- Changing connected devices (from FlashScan to AutoCal or AutoCal to FlashScan) was not being recognized correctly.

### Known Issues

- When programming a new boot block, a “successful” message may be displayed even when the boot block programming fails. Please double check the boot block firmware version and date after programming to ensure the new boot block was correctly programmed.
- Due to relaxed version checking during the beta test phase, no check is made to prevent programming V2.5.17 firmware into a FlashScan unit with V2.05.04 boot block. If you do that, the FlashScan unit will hang after displaying the splash screen. To recover, program the V2.05.15(0326) firmware back into the FlashScan device, then upgrade the boot block to V2.05.08, then program in the latest V2.05.17 firmware.
- Opening multiple copies of EFILive\_Explorer, then closing one of them will terminate EFILive\_Hapi, leaving the remaining EFILive\_Explorer processes hanging while waiting for a response from the non-existent EFILive\_Hapi process.

# EFILive\_Hapi beta V8.1.1 (Build 31)

## New Features

- \*.png image transparency is now dynamic. If the window background color changes the \*.png images transparency is automatically adjusted to reflect the new background color scheme.

## Bug Fixes

- None.

## Known Issues

- None.

# FlashScan/AutoCal beta V2.5.17(0603)

## New Features

- LBZ/LMM injector calibrations can now be copied from the Glow Plug Module and programmed into the ECM.
- FlashScan Only: LCD screen can be toggled between inverse and normal using the Ctrl+DownArrow key while data logging.
- FlashScan Only: Ctrl+F1..Ctrl+F4 hotkeys can be used to “quick select” 1 of 4 predefined PID selections. See **Options.ini** for example of setting up quick select.
- FlashScan Only: “0” hotkey can be used to start data logging.
- FlashScan Only: You can now choose whether you want the external and/or serial wide band PIDs to be automatically included in the selected PIDs. See **A/D PIDs** and **Ser PIDs** in the FlashScan settings screen.
- Two DTC retrieval options now exist.
  - All DTCs (includes Current and Pending DTCs).
  - Current DTCs (includes Current DTCs only).
- FlashScan only: DTC descriptions are now available. Highlight the DTC of interest and press **OK**. You must copy the four files: **p.dtc**, **b.dtc**, **c.dtc** and **u.dtc** from the \Program Files\EFILive\V8\Scan folder to the [Scan] tab page using EFILive Explorer before the description feature will work. For now, FlashScan is using a naïve linear search, some DTC descriptions can take up to 10 seconds to appear. The higher the DTC number the longer FlashScan will take to find its description. That will be optimized in a later release.
- Lookup option is now available for displaying the description of a user entered DTC.

## Bug Fixes

- \$0281 error when clearing and/or displaying DTC's has been fixed.
- AFRATIO\_M PID is now supported on all E38/E67 operating systems.
- 32-bit DMA PIDs are now logged correctly.
- The “Please Wait” message no longer displays on FlashScan's screen when clicking on [Properties] in the [Scan] or [Tune] tab pages in EFILive\_Explorer.
- Mode \$06 results for VPW Max/Min limit detection fixed.
- Fixed garbled black box logging data.
- Fixed 2 and 4 channel PIDs returning junk data.
- Fixed TCM PIDs being dropped off of black box logged data.
- Fixed precision in mode \$05 results.

**Known Issues**

- None.

## EFILive beta V7.5.4 (Build 56)

### New Features

- Added message when no DTCs are detected in any modules.

### Bug Fixes

- Changed Cylinder volume units from CC to liters to match Gen-IV calibration units. Since it is no longer specified in CC, the automated units conversion process does not support cubic inches for that calibration.
- E38 reflash boot loaders have been updated to prevent the “no start” problem after flashing or locking.
- In-Line 5-cylinder, PCM read problem has been fixed.
- Engine runtime PID now counts up by 1 count each second (instead of 160).
- Corrected scaling for Injector Valve Timing PIDs.

### Known Issues

- The VE table for the E40 controller cannot be displayed in g/cyl or g/sec due to the axis on the VE table being swapped. (Fixing this is low priority).
- Speedo calculator for Allison transmissions does not work correctly. (Fixing this is high priority).

## EFILive\_Explorer beta V8.1.1 (Build 27)

### New Features

- None.

### Bug Fixes

- None.

### Known Issues

- When programming a new boot block, a “successful” message may be displayed even when the boot block programming fails. Please double check the boot block firmware version and date after programming to ensure the new boot block was correctly programmed.
- Due to relaxed version checking during the beta test phase, no check is made to prevent programming V2.5.17 firmware into a FlashScan unit with V2.05.04 boot block. If you do that, the FlashScan unit will hang after displaying the splash screen. To recover, program the V2.05.15(0326) firmware back into the FlashScan device, then upgrade the boot block to V2.05.08, then program in the latest V2.05.17 firmware.

## **EFILive\_Hapi beta V8.1.1 (Build 27)**

### **New Features**

- None.

### **Bug Fixes**

- None.

### **Known Issues**

- None.

## **FlashScan/AutoCal beta V2.5.17(0519)**

### **New Features**

- The Switch.ini file has been updated to allow different sets of switchable tunes to be configured.

### **Bug Fixes**

- Allison TSTATE16 PID now displays fast/slow correctly.

### **Known Issues**

- Some beta testers have reported black box logging randomly stops. If you experience that while black box logging, please save a trace file on FlashScan and send it and a brief description of the conditions to [paul@efilive.com](mailto:paul@efilive.com).

## EFILive beta V7.5.4 (Build 54)

### New Features

- Some third party tuning packages (GM's SPS included) can sometimes damage the non-volatile memory area. If that memory is damaged the PCM cannot determine its locked status correctly. A new option has been added to the "Try Alt Keys" checkbox to allow EFILive to force the PCM to unlock the controller if and when that happens.

### Bug Fixes

- Speedo calculator for corvettes has been corrected to use the actual diff gear ratio fitted to the vehicle rather than using the calibrated value which is usually set wrong from the factory.
- Dialog boxes for opening and saving files have been upgraded to work correctly with Windows Vista.
- The Engine run time PID GM.RUN\_TIME (or RUNTIME in BBL) has been fixed to report seconds instead of seconds \* 160.

### Known Issues

- Some E67 calibrations incorrectly show cylinder volume using liters instead of CC, even though the units are displayed as CC. Until that is fixed, if and when you change the cylinder volume, edit it in metric and enter the cylinder volume as liters instead of CC. I.e. for a 6 liter engine set it to 0.75 instead of 750 CC.

## EFILive\_Explorer beta V8.1.1 (Build 26)

### New Features

- EFILive\_Explorer.exe now resides in the \Program Files\EFILive\V8 folder.
- Firmware files now reside in the \Program Files\EFILive\V8\Firmware folder.
- Boot block files now reside in the \Program Files\EFILive\V8\Boot Block folder.

### Bug Fixes

- None.

### Known Issues

- When programming a new boot block, a "successful" message may be displayed even when the boot block programming fails. Please double check the boot block firmware version and date after programming to ensure the new boot block was correctly programmed.
- Due to relaxed version checking during the beta test phase, no check is made to prevent programming V2.5.17 firmware into a FlashScan unit with V2.05.04 boot block. If you do that, the FlashScan unit will hang after displaying the splash screen. To recover, program the V2.05.15(0326) firmware back into the FlashScan device, then upgrade the boot block to V2.05.08, then program in the latest V2.05.17 firmware.



## **EFILive\_Hapi beta V8.1.1 (Build 26)**

### **New Features**

- EFILive\_Hapi.exe now resides in the \Program Files\EFILive\V8 folder.

### **Bug Fixes**

- Calibration page image is now displayed correctly.

### **Known Issues**

- None.

## **FlashScan/AutoCal beta V2.5.17(0512)**

### **New Features**

- Two Mode \$06 test result displays are available;
  1. Displays only tests that have failed.
  2. Displays all tests.
- Hot key to toggle inverse screen on/off. Hotkey is Ctrl+Down.

### **Bug Fixes**

- Sometimes 2 PCMs were detected during power-up. FlashScan now only detects one of each type of controller.

### **Known Issues**

- None.

## EFILive beta V7.5.4 (Build 51)

### New Features

- None.

### Bug Fixes

- Calibration-only and full flash counters are now displayed the right way around.
- The FlashScan V2 VIN Licensing window now describes the firmware version correctly. Previously it was incorrectly described as Boot block version.

### Known Issues

- Some E67 calibrations incorrectly show cylinder volume using liters instead of CC, even though the units are displayed as CC. Until that is fixed, if and when you change the cylinder volume, edit it in metric and enter the cylinder volume as liters instead of CC. I.e. for a 6 liter engine set it to 0.75 instead of 750 CC.

## EFILive\_Explorer beta V8.1.1 (Build 26)

### New Features

- None.

### Bug Fixes

- None.

### Known Issues

- When programming a new boot block, a “successful” message may be displayed even when the boot block programming fails. Please double check the boot block firmware version and date after programming to ensure the new boot block was correctly programmed.
- Due to relaxed version checking during the beta test phase, no check is made to prevent programming V2.5.17 firmware into a FlashScan unit with V2.05.04 boot block. If you do that, the FlashScan unit will hang after displaying the splash screen. To recover, program the V2.05.15(0326) firmware back into the FlashScan device, then upgrade the boot block to V2.05.08, then program in the latest V2.05.17 firmware.

## EFILive\_Hapi beta V8.1.1 (Build 26)

### New Features

- None.

### Bug Fixes

- None.

### Known Issues

- None.

# FlashScan/AutoCal beta V2.5.17(0506)

## New Features

- System Readiness Tests' status display is now available.
- System Readiness Tests' status is now included in the "Record All Diags" option.

## Bug Fixes

- Protocol detection used to fail for some operations if FlashScan was connected before the ignition was switched on.
- VIN Licenses and Stream Licenses now show up correctly on FlashScan's LCD screen.
- Mode \$06 for CAN vehicles has been fixed to correctly display signed values for test results, minimums and maximums.

## Known Issues

- None.

## **EFILive beta V7.5.4 (Build 50)**

### **New Features**

- None.

### **Bug Fixes**

- Re-plotting filtered data in the Scan Tool now works correctly.
- Fixed Access Violation error when attempting to “revert” changes made to VVE tables.

### **Known Issues**

- None.

## **EFILive\_Explorer beta V8.1.1 (Build 26)**

### **New Features**

- The boot block checkbox is automatically checked or cleared if the selected filename contains the text “Boot” as the 3<sup>rd</sup> to 6<sup>th</sup> characters.

### **Bug Fixes**

- Fixed Access Violation error on first start-up of EFILive\_Explorer. The error occurred only the initial folder specified in EFILive\_Explorer.ini did not exist.
- Fixed typo in Options.ini: PCM,FUELSYS changed to: ECM,FUELSYS.

### **Known Issues**

- The first time the EFILive\_Explorer software is run it may generate an exception. In that case, please close and restart the EFILive\_Explorer program.

## **EFILive\_Hapi beta V8.1.1 (Build 26)**

### **New Features**

- None.

### **Bug Fixes**

- None.

### **Known Issues**

- None.

# FlashScan/AutoCal beta V2.5.17(0503)

## New Features

- None.

## Bug Fixes

- FlashScan now creates log files that are correctly recognized by the EFILive Scan Tool software.
- Full and cal-only flash counters now display correctly.
- DMA PIDs are now supported correctly for LS1 97/98 controllers.

## Known Issues

- None.

# EFILive beta V7.5.4 (Build 49)

## New Features

- Added DMA PID support for additional E38 operating systems.

## Bug Fixes

- Speedo calculator was mixing metric and imperial values.
- Custom P12 operating systems are now recognized properly.
- Corrected/Added calibration links for virtual VE tables for E38 and E67 controllers.

## Known Issues

- Also, see ***Known issues*** for previous releases below.

# FlashScan/AutoCal beta V2.5.17(0426)

## New Features

- LCD display may be inverted using new configuration option.
- File system menu has been moved to be directly under Options menu.
- New file system statistics display shows reads, writes and error counts.
- Added support for the JAW wide band controller, serial data stream.
- The default serial port configuration is now  
Com In: Wide-O2  
Com Out: Wide-O2  
WO2 Type: Innovate

## Bug Fixes

- Spurious bugs have been resolved. These seemingly random faults were caused by this problem: <http://forum.efilive.com/showpost.php?p=68680&postcount=1>
- Fixed E38 DMA PIDs not showing up when BBL files were being displayed in the V7.5 Scan Tool software.
- TechEdge V1.5 and V2 wide band AFR and Lambda were being calculated incorrectly.
- Frame count was wrapping back to 0 after reaching 65535. That caused large logs files to be truncated.
- LED status, VPW and CAN transceivers and various other peripherals would not be restored correctly after low power mode had been active for longer than the low power mode timeout. (Caused by re-entering the low power routines while in low power mode.)

## Known Issues

- Also, see **Known issues** for previous releases below.

# EFILive beta V7.5.4 (Build 48)

## New Features

- Analog and serial wide band PIDs and their associated BEN factors have been defined in sae\_generic.txt. The new BEN factor definitions cover all three known commanded AFR PIDs: GM.AFR, GM.AFR\_B and E38.AFRATIO\_DMA.
- Connecting the Scan Tool to CAN based controllers has been speeded up.
- More DVT (bi directional) controls are now available, more to follow.
- DVT controls now report back the result (success or failure and reason for failure) of each DVT command.
- DVT controls now work correctly in high speed logging mode. When a control's value is changed you will notice a small (1/10<sup>th</sup> second) pause in the data log. The pause is to allow the DVT control message to be sent and the status reply received.
- Each time a new controller is licensed to the FlashScan device, a backup copy of FlashScan's license details is saved to the file:  
\\Program Files\\EFILive\\V7.5\\<serial>.lbu  
That file can be used by EFILive to reconstruct your license details in the event that your FlashScan cable needs to be replaced.
- A new [Backup] button is available in the FlashScan V2 VIN licensing window that saves a backup copy of FlashScan's license details. We recommend performing the backup once you have upgraded to this version.

## Bug Fixes

- Speedo Calculator
  - The value of H0136 was being incorrectly used as km/h when it was defined as mph.
  - H0102 was not being used correctly. It was defaulting to 17 or 40 which was incorrect for some calibrations.
- When licensing a controller prior to flashing it for the first time, EFILive no longer makes 10 failed attempts to determine the status of the controller.
- If one controller of an ECM/TCM pair is in dead-poll either controller can now be re-flashed without interference from the dead-polling controller.

## Known Issues

- Also, see **Known issues** for previous releases below.



# FlashScan/AutoCal beta V2.5.16(0414)

## New Features

- The menu option: "F1 Select Vehicle" has been replaced with "F1 Select PIDs". Accordingly the \*VEHICLES section in Options.ini has been changed to \*PID\_SELECTIONS.
- More rigorous pass-through mode detection has been implemented. When FlashScan is being used as a pass-through device from a PC/laptop, you can't select FlashScan menu items that would interfere with the pass-through operation (i.e. menu option that cause communication with the controller).
- The FlashScan keypad is now disabled while re-flashing a controller.
- VIN license details can now be viewed on FlashScan's screen: F4->F2->F2.
- Stream license details can now be viewed on FlashScan's screen: F4->F2->F3.
- Mode \$06 results for CAN based controllers now displays **High**, **Low** or **OK** depending on the results of each module/test ID.

## Bug Fixes

- Fixed boot block update failure.
- The values of multipart PIDs (i.e. FUELSYS) were being displayed correctly but the data was not being logged correctly.
- Fixed DMA PIDs which were incorrectly reported as "Not supported" on E38 controllers.
- Sleep mode is now activated after the sleep mode timeout has expired.

## Known Issues

- After FlashScan exits from sleep mode, communications with VPW based controllers may fail until FlashScan is power cycled. If you experience such a failure, please report it to [paul@efilive.com](mailto:paul@efilive.com).
- After FlashScan exits from sleep mode, the LED status may be changed to "X". If you experience that, please report it to [paul@efilive.com](mailto:paul@efilive.com).
- When attempting to place FlashScan into dead-poll manually (using the Ctrl key), you must wait approximately 5 seconds after disconnecting power from FlashScan before re-applying power. Otherwise FlashScan may not correctly detect that dead-poll mode is being requested.
- Also, see **Known issues** for previous releases below.

# EFILive beta V7.5.4 (Build 47)

## New Features

- Added CALC.BEN1 and CALC.BEN2 (using GM.AFR) and CALC.BEN1\_B and CALC.BEN2\_B (using GM.AFR\_B) to sae\_generic.txt. All 4 PIDs return the Base Efficiency Numerator for AutoVE tuning, based on wide band serial AFR data.
- Additional DVT (bi-directional) commands have been added for various controllers. More will be added during the next week or two.
- Additional E38 DFCO calibrations have been added.

## Bug Fixes

- \_M PIDs logged using BBL that were not showing up in the EFILive Scan Tool software correctly as \_DMA PIDs.
- Operating System drop down list box was not being populated due to \*.cal file names being changed to \*.calz.
- Equiv Ratio PID's units have been corrected from V to EQ.
- SW1 and SW2 now display correctly in the Scan Tool.
- BBL log files that contain WO2ST1 and WO2ST2 will now display correctly in the EFILive Scan Tool Software.
- All controllers' PID definition files (\*.pmm) were missing a random sprinkling of PID definitions. They have all been added back in.
- Speeded up reading/writing to CAN controllers.
- When clicking on the [Stop] button during the countdown after a full flash on E38/E67 and E40 controllers, the full flash process no longer spontaneously restarts.
- The [License PCM] button was failing to identify the controller's status prior to VIN licensing the controller. That caused 10 needless status retries each time a controller was being VIN licensed.

## Known Issues

- Please remove any user defined CALC.BEN1 and CALC.BEN2 PIDs from calc\_pids.txt as they are now defined in sae\_generic.txt.
- Speedo calculator is still not 100% accurate for all known speedo configurations.
- Also, see **Known issues** for previous releases below.

# FlashScan/AutoCal beta V2.5.16(0407)

## New Features

- CAN Mode \$06 Test Results are now available on screen and in the Diagnostic report. (VPW Mode \$05 and \$06 reports will be available in a future release).
- Attempting to display or log Freeze Frame data, Mode \$05 or \$06 results when no vehicle has been selected is not allowed.
- Left and right arrow keys can be used as page-up and page-down (respectively) when displaying lists on FlashScan's screen.

## Bug Fixes

- New boot block (V2.5.06) has been released. Please see the Readme\_First.pdf for instructions on how to install the new boot block.
- LS1 97/98 operating system number is now returned correctly. This enables BBL to work correctly with DMA PIDs.
- LBZ/LMM operating system number is now returned correctly. This enables BBL to work correctly with DMA PIDs.
- When changing to custom units, the display precision is no longer reset to 0.
- Adjusted TechEdge V1.5 wide band controller Lambda computation.
- Engine oil pressure PID has been corrected so that the Scan Tool correctly displays engine oil pressure logged during black box logging.

## Known Issues

- Also, see **Known issues** for previous releases below.

# EFILive beta V7.5.4 (Build 46)

## New Features

- Added \*.pmm (PID definitions) for P10, P12 and E67 controllers.
- Added missing cam angle PIDs.
- Added LS1/98 controllers.
- Added GM.EOPS Engine Oil Pressure PID.
- Added support for new Allison operating systems.
- Added additional DVT controls (bi-direction controls) for LB7, LLY LBZ and LMM Duramax Diesels.

## Bug Fixes

- Fixed LMM re-flash failure.
- The calibration definition for operating system 12606400 has been fixed.

## Known Issues

- GM.EOPS returns the oil pressure sender's 0-5V signal, not kPa or psi. For most LS1 applications convert the 0-5V value to kPa or psi use the following expressions:  
$$\text{kPa} = V * 220.625 - 110.3125$$
$$\text{psi} = V * 32 - 16$$
- Reading the calibrations from a 2Mb 4 cylinder controller does not work.
- If an LLY ECM flash fails and a working TCM is on the class-2 bus, EFILive will not detect the failed ECM and will instead attempt to recover the TCM. That will fail. Disconnect the TCM from the bus prior to attempting to recover the ECM. Or remove the ECM and re-flash it using a bench harness.
- Also, see **Known issues** for previous release (Build 44) below.

# FlashScan/AutoCal beta V2.5.15(0326)

## New Features

- None.

## Bug Fixes

- Serial wideband pass-through logging now works.
- Fixed DMA PIDs that were not logging correctly.

## Known Issues

- Also, see ***Known issues*** for previous release (0320) below.

# EFILive beta V7.5.4 (Build 44)

## New Features

- Bi-directional controls are now called Dynamic Vehicle Testing (DVT) controls. A new DVT control panel has been created on tab page [DVT (F12)] that can be used to control any controller. It may be used to command a controller that is different than the controller being logged. I.e. To command gears in a TCM while logging an ECM. Not all controllers are fully supported yet. See **known issues** below.
- Added read and re-flash support for P12 controllers.
- Speedo calibration H0102 added for E38 and E67 controllers.
- E38 boot loaders have been updated.
- If no channels are selected (i.e. calculated and external PIDs only) data logging can start even when no controller is connected.
- Detected cable confirmation can now be disabled in Properties window.
- Connecting to FlashScan only is now supported as an option in "Select controller".
- RTACS now supports Addition, subtraction, multiplication and division as well as the current BEN factor percentage adjustment. Just add the operator (+, -, \* or /) you wish to use followed by a comma before the first PID name in the \*.RRR key like this: **Bxxxx.RRR=+, <pidname>** Leave it blank to use the standard BEN factor %.
- When clicking on the [Copy] Button to copy the Auth code, now both the Auth code and the Serial number are copied. That helps to reduce typographical errors when ordering new licenses.
- Loading \*.tun files has been optimised and speeded up. In some cases up to twice as fast as before.
- Virtual VE tables' scan tool link PIDs have been added.

## Bug Fixes

- Speedo calculator was not copying all values back to calibration.
- Changing from AFR to Lambda just prior to saving changes can cause AFR values to be incorrectly saved into \*.tun file.
- If no PIDs were selected then attempting to log or monitor data would hang the software.
- Charts did not handle the "Display Short PID names" option.
- PID selection window now shows channel count precisely instead of in multiples of 6. It now also shows the number of packets that are used to transmit the selected channels. Keeping the packet count at or below 4 is now the stated target, instead of the previous target of keeping the channel count at or below 24.
- Adding a calculated PID to the strip charts would not set the minimum value (specified in sae\_generic.txt) correctly.
- Fixed incorrect scan tool link PIDs for fuel tables in E40 tunes.
- Fixed problem where some calibrations measured in kPa were being incorrectly translated into PSI. Specifically E38: B8034, B7902, B7903 and B7904.

## Known Issues

- Not all controllers' DVT controls have been mapped out yet. We will attempt to release the more popular controllers and the more popular controls first. I.e. Controllers: Diesel, Allison, E40/E38 and T42/T43. Controls: Gear holding and CASE learn.

# FlashScan/AutoCal beta V2.5.15(0320)

## New Features

- DMA PIDs are now supported in Black Box logging.
- GM enhanced PIDs are now supported in Black Box logging.
- Serial data logging of wide band O2 data (Lambda, EQRatio and/or AFR) is now supported for the following controllers:
  - Innovate LC-1
  - Innovate LC-2
  - PLX
  - TechEdge 1.5
  - TechEdge 2.0
  - JAW
  - AEM UEGO
- FlashScan can be used as a digital display/monitor for the each of the wide band controllers listed above.
- DSP5 Diesel switch-able tunes can now be switched using menu options in FlashScan.
- Low power mode now disconnects the CAN and VPW transceivers from their respective busses. That allows other modules on the bus to enter sleep mode more effectively because FlashScan will not continue polling on the bus while in sleep mode.
- New hotkeys have been added, please see ***FlashScan AutoCal V2.5 Quick Reference (beta).pdf*** for more information.

## Bug Fixes

- Allison 6 speed re-flashing was failing due to incorrect VPW<->CAN bridge translation.
- DTC display now shows the correct controller mnemonic next to each DTC.
- E38 BB Logging hang-ups have been corrected.

## Known Issues

- Displaying O2 sensor test results (Mode \$05) is not supported in standalone mode yet. However this feature is and has always been available in pass through mode.
- Displaying specifically monitored systems' test results (Mode \$06) is not supported in standalone mode yet. However this feature is and has always been available in pass through mode.
- Reading and flashing is not supported in standalone mode yet. Obviously these two features are and have always been available in pass through mode.
- Some PIDs have had a name change from their V7 name to their BB Logging name. Those PIDs will not be able to be read/displayed by the V7 software until they are added to the V7<->V8 translation layer. We have tried to add all the PIDs that have had a name change but we may have missed some. If you find that one or more BB Logged PIDs are not displaying in the V7 software, please send the \*.efi file to me ([paul@efilive.com](mailto:paul@efilive.com)).  
Hint: You can see a list of the PID name changes in the sae\_generic.txt file under the section ***\*BBLV7***. As well as the PIDs listed in that section, ***ALL*** \*\_DMA PIDs now have \_M (Memory) appended instead of \_DMA (Direct Memory Access).
- Two FlashScan units exhibited a flash memory issue during internal testing. They both "lost" their file system format. The problem is not reproducible and the effects were not permanent. If you see FlashScan or Efilive\_Explorer display error \$0182

"file system not formatted" being shown, please report the conditions under which the error occurred to EFILive at ([paul@efilive.com](mailto:paul@efilive.com)).