

# eSCOPE ELITE Release Notes and Revision History:

## 12/29/2021 Rev 1.1.1:

- Setup Fast Capture to start after holding the pen button for 3 seconds. Note that a quick press of the pen will start Deep Record.
- Setup Measure Selected Channels while loading data to automatically select according to how many channels were saved in file.
- Added "Unknown" options while loading and saving data for Make, Model, and Engine Size.
- Adjusting offset after Marking Cylinders will now keep cylinder numbers on screen as offset moves.
- Added HOME buttons while loading and saving data that will default the data file location to the **\Data** folder.
- Added MsrMark360 for finding things like loose timing belts.
- Added 4 Cylinder, 1-2-3-4 Firing Order
- Added 8 Cylinder, 1-8-7-3-6-5-4-2 firing Order.
- Added 12 Cylinder, 1-7-5-11-3-9-6-12-2-8-4-9 firing Order.

## 07/01/2021 Rev 1.1.0:

- Added feature to stop Deep Record when a new eSCAN DTC occurs.
- Added feature that will allow double-clicking on TDMS files to automatically load the eSCOPE ELITE program and the selected file.
- Added the ability to save the "Firing Order" to data files.
- Added "Default Range" and "PSI" range buttons above range settings to automatically setup "PSI" ranges and to zero the ranges set to use pressure sensors. This allows for a very quick pressure transducer setup. Selecting "Default Range" sets ranges and zeroing back to normal.
- Added Offsets to "Load, Modify, and Save Data File" pop-up to move channels up and down with custom offsets.
- Added "Show A Timebase Only?" button to eIGNITION to increase size of the Dual A graph.
- Added graphical eSCOPE button on eIGNITION screen to return to eSCOPE.

## 03/02/2021 Rev 1.0.9:

- Added new "^ All" button on the "Measure & Deep Rec" screen that will evenly spread out all traces when pressed. If pressed again, it will undue this function.
- Added an option on the "Process Data" pop-up to multiply individual traces to make them larger or smaller compared to the other traces.
- Marking Cam Shafts will now add "Power/Exhaust/Intake/Compression", "TDC..BDC", and "0..720" annotations to the waveform.
- When cropping files to be saved after pressing the "Modify Data File" button, the start offset and length of the crop is now adjusted in seconds instead of in data points.
- When doing cranking compression tests, there is now an options for a fast (5 second) crank for vehicles that do not allow the normal 8 second crank.
- Setup files and images have been updated.

## 03/02/2021 Rev 1.0.8:

- Added European Spanish and North American Spanish options for manuals and help button text.
- MultiTool now runs during a Deep Record to monitor of things like eSCAN while Deep Recording.
- Added UK Makes & Models that are not seen in the US for file data.
- Added Zoom Undo option on Measure graph.
- Added option to show just four MultiTool channels instead of eight so they display larger.
- Added "1-2-7-8-4-5-6-3" to the 8 cylinder firing orders.

- Made several enhancements to CKP processing routines.

#### **09/25/2020 Rev 1.0.7:**

- Added new Process Data function that converts PWM waveforms to PWM percentage.
- eIGNITION software now supports new TDMS file format like the eSCOPE.
- Measure & Deep Rec screen now scales better on higher resolution screens.
- Updated default file path location.

#### **08/14/2020: Rev 1.0.6**

- o Now supports the new eSCOPE ELITE8 along with the eSCOPE ELITE4 with the same program.
- o Note that '4' was removed from the name and program will auto-detect if the hardware is an eSCOPE ELITE4 or an eSCOPE ELITE8.
- o If number of "Channels Used" is less than number of channels available, software will remove unused channels from screen to make interface much simpler.
- o Help files were converted to a format that will not cause issues with virus programs.
- o Added a basic example of a how-to setup a Pull Down connection on the Outputs tab.
- o Added cylinder numbers when marking them on the Measure and Deep Rec tab.
- o The cylinder grid can be marked with ignition, intake, or exhaust firing orders. This automatically allows you to see where the ignition fire occurred, where the intake pull occurred, and where the exhaust push occurred.

#### **05/01/2020: Rev 1.0.5:**

- o New default data format for saved files are now TDMS, this allows for saving year, make, model and engine size in the file name from drop down selection as well embedding engine size, transmission, system tested and channel connection information in the saved file.
- o Changes to "Setup" tab
  - o All Ranges now default to +/-500V.
  - o AMP Clamp ranges now reflect actual settings of 20A, 60A and 600A
- o Changes to "Controls" tab. "Modify Data File"
  - o Functionality has been added where a previously recorded data file in bin, rec, txt or csv format can be saved as TDMS with all the added enhancements outlined in the new default data format description.
  - o Additionally, advance functionality to switch channels has also been added.
- o Changes to "Measure & Deep Rec" tab
  - o "Start Fast Capture"
    - Fast Capture will record at the maximum speed and as such data will not appear until the recording has been stopped.
    - In Fast Capture mode, even larger amounts of data (multi-million of points) will be captured as compared to "Deep Record"
  - o Channel Offsets
    - We have added the ability to simply add offsets to the signal on display by channel either in a positive or negative direction. You can reset the offset to original by clicking on the illuminated offset LED.
    - You can enable or disable the "Mark" channel on screen display.
- o "Tool" tab has been added
  - o CKP Misfire - We have added functionality where the software can locate misfiring cylinders from the signal produced from the crankshaft position sensor.
  - o Compression – Functionality has been added where a Relative Compression Test can be performed and displayed on screen with the vehicles' firing order overlaid.

**06/14/2019: Rev 1.0.4:**

- o Measure & Deep Record has new Frequency Plot option that plots frequency changes over time.
- o Measure & Deep Record now calculates Deg instead of Deg/ms
- o Measure & Deep Record now adjusts Deg as you move cursors after initially set.
- o Measure & Deep Record now adjusts Cylinder Marking as you adjust #Cyls and Offset.
- o Measure & Deep Record now sets Offset default to 0.00 to avoid confusion.
- o Measure & Deep Record now default binary file names to .rec instead of .bin but both still work the same.

**01/31/2019: Rev 1.0.3:**

- o Added ability to change printer from default and to disable header on print outs
- o Added ability to remember a zoom location (Zoom Set) and to return to that zoom location (Zoom Back) on Measure screen
- o Added ability to load eight channels created on eSCOPE PRO to Measure Screen
- o Added calculator to Measure screen to pop-up Windows Calculator
- o Added "RPM" and "deg/ms" indicators that calculate when "Mark Cam Shaft" or "Mark Cylinders" buttons are pressed
- o Added option on preferences screen to use thin scope lines

**01/09/2018: Rev 1.0.2:**

- o Tools Menu and Multi-Tool name updates.
- o iEA for eSCOPE ELITE4 now installs with eSCOPE ELITE4 installer.

**12/22/2017: Rev 1.0.1:**

- o Added eIGNITION software for ignition signal processing on the eSCOPE ELITE4.
- o Added notes about how to use scrollbar in Triggered versus Strip Chart mode.

**11/21/2017: Rev 1.0.0:**

- o Initial release.