catoolRT 15.12 Release Notes

Changes since 15.9:

- Support more translation strings for future Spanish/German language support
- Specify external clock interpolation resolution (Advanced Config)
- Changed default interpolation type from "Closest" to "Interpolate" for interpolate external clock.
- Enable simulated "Max RPM" mode to help determine maximum engine speed a PC can support (Advanced Config)
- Groundwork for CAN data logging
- Allow for auto re-arming of recordings. Once a recording is finished it automatically starts again. This allows recording of long time periods without generating one very large file.
- Support valve, injector and ignition timing analysis
- Support "piston factor" in calculation of engine geometry
- Support plotting only partial burn, misfire, knocking and/or mega-knocking cycles
- Allow display of individual plot draw and update rates and total plot draw time
- Significant improvement in channel analysis scheduling
- New CAN signals (file number, segment engine speed, number of resyncs and tooth engine speed). The file number can be used with the auto re-arming of recordings to find the associated combustion data from logged CAN data.
- Calculate engine speed over cycle (2 revs for 4 stroke engine), segment (between firing events) and tooth-to-tooth.
- Reduced plotting time of high density (i.e. more data points than pixels) for cycle and crank angle data.
- For knock sensor analysis perform FFT on knock and reference windows.
- Specify a minimum CAN transmit rate. Ensures CAN engine speed tracks to zero during engine stop events.
- BUGFIX: Deleting a DAQ channel could cause a crash if certain analysis data plot existed
- Support IMEP "mean" method. Produces value closer to AVL value.
- Initial support for using cam profile to synchronise interpolated clock acquisition. This is required when cylinder pressure is not acquired, i.e. whilst acquiring only coil/injector data.
- Display update rate is now a function of the time taken to draw all plots. This should prevent plots from "freezing" when the plots can't be drawn quickly enough. "Update Rate" is now "Minimum Update Rate" in "Advanced Config". Plots will not be drawn any faster than is necessary or possible.
- Various other small bug fixes, speed and robustness improvements.