CalDesk 2.0: Simply More Flexible

CalDesk 2.0, the new version of dSPACE’s universal measurement, calibration and diagnostic tool, will soon have a new look. Its revised user interface has numerous convenience features to make your work easier and faster. The tool has many new functionalities and enhancements and can be used more flexibly in different ECU projects – for example, due to its new support of the LIN bus and XCP on Ethernet.

Simply Easier
CalDesk Version 2.0 has a reworked user interface based on the latest Windows technology. There is a new instrument library, so you can create complex layouts by assigning instruments to your working environment via drag & drop. Variables from the variable list are assigned just as easily, via mouse or keyboard.

When you configure instruments yourself, you can put them in a library of custom variants, so you do not need to reconfigure them every time you use them. CalDesk 2.0 lets you edit layouts without having to switch to a special edit mode. To make your work even easier, the menu structure has been reworked and the shortcut keys are now displayed in menus and tooltips.

New control bars at the edge of the screen let you quickly display or hide tool windows like the instrument library or the variable list, so you have the whole screen area for the optimal display of instrument layouts.

The Variable Array: A New All-Round Instrument
The instrument set itself has also been extended. The new Variable Array instrument has various configuration options, and is practically an all-rounder. Input fields, bitfields, sliders, status LEDs and the new Push, On/Off and Check buttons can be combined flexibly in just one instrument. With further options such as an integrated value range check, the Variable Array provides a space-saving overview of all the relevant information at a glance.

Simply More Versatile
CalDesk is now being used as a universal measurement and calibration tool in widely varying scenarios in the modern ECU software development process. Version 2.0 provides a whole range of new options for this:

The new user interface of CalDesk 2.0 is designed for higher efficiency, with new features such as an instrument library.
Recording Signals on the LIN Bus
The Local Interconnect Network (LIN) bus has become a standard at many OEMs. CalDesk 2.0 supports you in measuring and recording its physical signals, which are described in an LDF file.

XCP-on-Ethernet Support
XCP-on-Ethernet interfaces are growing in importance, not least because of their high measurement bandwidth. CalDesk 2.0 supports protocol variants TCP/IP and UDP/IP for XCP on Ethernet.

Calibrating ECUs Without Dedicated Data Segments
CalDesk 2.0 lets you calibrate ECUs that do not have separate memory areas for calibration parameters. To do so, you can upload and download only those calibration variables which are connected to instruments in CalDesk. You also now have the option to change variables which are defined as measurement signals in the ECU description file from within CalDesk.

Instrumentation with Identifiers from ODX Files
With CalDesk 2.0, diagnostic data (identifiers) from ODX files can also be used on measurement and calibration instruments. You can then perform simple measurement and calibration tasks on ECUs via the diagnostics interface instead of the calibration interface.

Further New Functions
Test drives typically produce measurement files that are several hundred megabytes in size. Frequently, however, only specific time intervals or even just selected signals are relevant for evaluation purposes. In this situation, CalDesk 2.0 provides an option for saving the precise time intervals and signals displayed in the Plotter instrument to a new measurement file – with or without data reduction. Thus, these measurement files contain only the information you really want and are manageable in size.

There are further enhancements and new functionalities in just about all areas of CalDesk 2.0:

- Undo/Redo of parameter changes and displaying the change history
- Data recording via automation Interface
- Faster change of software versions
- Improved dataset manager
- Hex editor
- GMLAN support for ECU diagnostics

Numerous new features make work with CalDesk much easier and therefore much more efficient. CalDesk 2.0 continues dSPACE’s strategy of providing one tool for a wide range of application scenarios in the modern ECU software development process.

Thus, XCP on FlexRay is already under development and will be available for the first customer projects in the course of this year.