Real Time Display RTD

Features

RTD is a simple to use real time analysis tool with recording capabilities. It supports DATaRec4 modules DIC6B, DIC24, DIC24Plus and MIC6 or PC's own sound card if no acquisition hardware is found.

It allows various trigger modes and analysis of the time data with up to 100 cursors and advanced zoom methods. It shows max. two channels from all activate channels. Any function can be altered in real time.

RTD is in any way compatible with EdWin/EwinView and EdasWin. It can display the EdWin data stream. But it also can deliver the data for EWinView Real Time display. It records data to disk in EdasWin format which is supported by many other software packages.

RTD uses a simple human interface (optimized for touch panels) with out nested dialogs. Auto layout let you display up to 6 diagrams.

Setup

Setup is hardware dependent and supports all features of the hardware modules like AC/DC, measurement ranges, filters, ICP coupling, RPM channels etc. in an easy to use table. Calculation to physical values, name and polarity can be defined in the same table additionally. If no Hardware is detected the Software uses the PC own sound card.

General functions for all diagrams

Up to 100 Cursors
RMS and delta time (or frequency) between the two first cursors.
Auto scaling for all settings
Auto scaling for any individual Y - Axis
Fast zooming in X - Axis
The different diagrams without the octave diagram use the same time based data

General function for Frequency analysis

Block size from 128 up to 65536 data points
Window functions:
Rectangle, Bartlett, Hann, Hamming, Blackman, Flat-Top, Exponential, Force,
Low Side - Lobe
Overlap from 0 to 95%
Averaging up to 4096 loops

Time diagram

Trigger on any defined channel
Trigger mode: None, Auto, Level
Trigger on pos / neg slope
Pre- and post trigger

FFT diagram

Magnitude and Phase
Real and Imaginary part
Peak or RMS Magnitude
Linear or Peak Hold averaging
Cascade diagram

Power spectrum or Autopower

Power or Powerdensity spectrum
Linear, RMS, log(p/p0), log(p/max), dBV, dBuV
Linear or Peak hold averaging
Cascade diagram
Spectogram

Frequency Transfer Function

Calculation H0, H1, H2
Magnitude + Phase
Real and Imaginary
Linear or log Magnitude Axis

Coherence

Cross spectrum or Crosspower

Autocorrelation

Normalized or real display

Crosscorrelation

Normalized or real display

1/n Octave analysis

Filter bank: IEC 1260:1995 and the ANSI S1.11:2004
A-Weighting IEC 61672:2003
Bandwidth 1/1, 1/3, 1/6 and 1/12 Octave
Linear, A, B and C Weighting
Slow or fast time filter
OASPL calculation

Digital Multimeter

Current, RMS for 0.3, 1, or 3 seconds, Mean, Min, Max.

Recording:

Records all defined channels on disk up to 200 MBytes per second.
No 4GB limit for files.
Additional every trigger event with his data will be stored in extra files on disk.
Dataformat is the well known EdasWin format (".edt" extension)