LDS-Dactron RT Pro Version 6.2

Enhancements

Ultra-High FFT Resolution – This feature permits measurement and display on-line of Averaged PSDs with up to 102,400 FFT lines

Export Units – The Signal Manager now includes an option that allows the user to set the units for spectra as EU_{pk}, EU_{rms}, EU^2, or EU^2/Hz for file formats such as ASCII and UFF.

TEDS Sensor Support – Updated the FOCUS II software to support for TEDS version1.0 formats.

FOCUS II Fan Speed – A new command has been add to set the fan speed to run on a low speed for quiet operation with forced cooling.

Signal Calculator – Advanced functions have been added including "FFT", "Conjugate", "Real Part", "Imaginary Part", and "Magnitude." Square Root supports operations on octave spectra.

Uniform Random Source – This new source signal provides a flat amplitude distribution for better excitation of the test article than when using Gaussian amplitude distribution.

Run Log – The Run Log feature has been added as a selection in the Quick Report Setup dialog to provide easy documentation for Pass/Fail tests using the Automated Test option.

Automated Test Limits - The Modify Y feature now allows a limit table to be scaled by dB or percentage value. This feature makes it easier to create tolerances for Automated Test limit checks.

FFT Playback - RPM waterfalls added; saving of a user selected segment of the FileView signal; and multi-file import in one Open operation

Playback Digital Filters – The filter coefficient computations have been converted to use double precision. This change allows the low frequency setting for high pass or low pass filters to be defined down to 1% of the measurement frequency span.

Other Enhancements and Bug Fixes

Signal Analysis & Waveform Source
2102   Histogram units label was incorrectly labeled as percent.
2104   Auto Correlation display should be 0.5 times of what it is displaying.
2136   Waveform Recorder problems on Focus when saving RPM channels
2145   Pre-View mode causes an "incompatible size between DSP and PC" message.
2230   No data in Waterfall display and other displays not updated for Span < 4000 Hz.
2301   FFT signal amplitude scaling problems when displayed in velocity or displacement.

2411   Focus Preview - Incompatible size between DSP and PC error
2442   Automated Testing Limits - invalid dialogs on a PC running Win2K SP4
2466   Nyquist (Vector) and Polar plots were not displayed correctly.
2519   Trigger setup dialog error message.
2541   Display Signal in Octave Band - Synthesized 3rd Octave band problems
2581   FFT spectra for Ch's 2, 3, & 4 were scaled by a factor of 1/9.80665
2590   Signal Calculator function name was wrong (Admittance should be Compliance)
2617   Cepstrum setup dialog title change
2618   Harmonic Table values always exported in dB units
2624   Real-time Waterfall - incorrect time axis readings on spectrograms.
2627   In Signal Analysis the RPM waterfall amplitude was incorrect for some EU selections
2635   AC initialization does not occur except when channel coupling is changed
2643   In Signal Calculator added time capture signals saved in .sig format had invalid units
2650   Event Waterfall spectrum amplitude not normalized correctly for non PSD units
2691   FFT Window menu list – Customize for each application. List should be None, Hanning, Force/Exp, Flat Top.
2692   Waterfall displays – The Z axis does not have a units label such as Time (sec)
2705   Scalable font size selection added for display cursor readout box
2706   FFT Zoom Acquisition setting using Ctrl-Z did not work properly

Others:
- Waveform Source – When the source is set to Auto frequency range a sine wave can be produced with a different frequency than that specified.
- Waveform Source Chirp low frequency setting now extends to as low as 0.05 Hz
- First framed captures using the Source trigger had a shifted starting time relative to the subsequent data frames captured.

Modal Data Acquisition
2516   Export problems with Auto and Cross Spectrum signals
2027   Update ME'scope VES *.blk files for every modal point acquired
2083   ActiveX API - add option to allow arbitrary waveform to stop after one block of data is acquired
2086   ActiveX API - Typo when ".Source.Types" set to Burst Random
2207   MEScope blk save needs to save as measurements made
2228   ME Scope file export- unsaved until final measurement is completed
2258   ActiveX API - Coupling problem
2289   ActiveX API - Source Sample VB "Stop Source" no longer works
2684   FRF measurement using peak hold averaging was not correct.
2690   Delete "R" and "E" from file DOF in file names to be compatible with ME'scope. Also changed the modal coordinates used for the UFF files.

Order Tracking Analysis
2070   Dimension (Velocity/Displacement) values don't match for G1,1(f) and MultiSpectrum1(f).

2154   Renaming a Multispectrum signal caused a problem.
2464   Order Tracking - Waterfall problems, delta RPM problem
2467   CFSA - upper half of Waterfall Phase data flat-lined on Stop. Can not verify
2473   Dimension in Waterfall plus Slice Window not working correctly
2474   Waterfall Slice shows incorrect data when change EU
2476   Waterfall X slice Z-RPM values multiplied by 60 when display x-axis as CPM
2478   Cross Spectra signals displays in waterfall have problems for some slices
2600   Improve order resolution down to 1/10 order for constant frequency span
2611   Constant Frequency Span waterfall slices incorrect when X axis is in order.
2614   RPMTrace signals cannot be auto-saved
2623   Constant Frequency Span multispectrum Export to Excel data problems
2632   Some Waterfall RPM values indexed incorrectly
2648   Constant Order Span waterfall X-Slice amplitude incorrect in ASCII file

Acoustic Analysis
2302   Trace(t) signal shows incorrect level when compared to Octave(f) signal
2372   Acoustic Preview causes problems with16 channel FOCUS
2458   1/1 Octave Low Frequency selections incorrect need to change dynamically to match the center frequencies of the lowest bands in the octave spectra (1, 8, and 63 Hz)."

Automated Limits
2498   Need a pass/fail check based on the FRF phase
2655   Limit not working for octave band spectra

Data Recorder
2667   The signal file from previous run was deleted if the user chose not to save current recording
2472   Arbitrary Waveform gives error on file import

Swept Sine Measurement
2551   Coherence measurement could be wrong
2651   Output Profile does not work as defined by user.

Playback – Signal Analysis & Waveform Source
2003   Playback now allows a segment of the File-View signal to be selected and then saved to a disk file or created as a signal candidate
2152   Problems encountered during import of ASCII (.txt), UFF Text, and SDF files
2404   Single Frame mode Next Frame button was ghosted
2416   Histogram Setup - Input Range setting cannot be changed from the default setting
2428   A false "Overloaded channel" message was shown in the Activity message box
2445   Playback - problem when importing 2 or more waveform recorder signals
2487   RPM Spectrum Processing was not working
2523   Playback software did not work with Lines greater than 12800
2540   Event by event playback did not work properly in playback

Others:
- Playback would not import a binary UFF file generated by Perception

Playback – Order Tracking
2401   Problems when the RPM and Spectrum channels were not set using RPM in other than channel 1

Playback – Sound Quality
2629   Double-clicking on the sound file caused problems
2359   Miscellaneous Sound Quality errors and problems
2396   Sound Quality scaling problem
Others:
- Digital Filters support 300 Hz high pass filter cutoff on data for 20 kHz frequency range (48 kHz sampling rate)
- Audio playback. The Play and Stop buttons worked but the Pause button did not work

Reports and Displays
1997   Active Report had problems when document was printed before closing the document
2182   Problems with dual cursor readouts for RMS and Power.
2471   Quick Report - MS-Word Template doesn't work for customized files
Others:
- Quick Report - Not compatible with Windows XP and Word 2000.
- Quick Report - Phase trace disappeared from the plot.
- Quick Report - The Channel Parameters measurement units were not correct for some cases
- Event Waterfalls – When using octave band spectra the X slice cursor does not follow the contour of the octave spectrum.
- Active Report crashed when more than 5 ActiveX controls were created
- "Shift side arrows" did not link x-cursors in similar windows.
- Y-cursor units were not listed in the text box.
- Harmonic Cursor movement using keyboard arrows not available if Link Cursor Movement was active
- "Add All harmonic Cursors" was not working in 3D view.
- Input table, use of click-shift or ctrl-click to select multiple signals for import
- Input table, open dialog needs to remember the last used File Type setting
- Input table, in renaming the signal, the signal name in main window and Signal Manager used the new name, but the new name was not used in the File View pane every time

Data Saving and Recall
2242   Prompt for Data Folder would pop-up when the INIT button was used
2268   When "Increment" was selected for the Folder Append Mode in Signal Manager, clicking on the "Init." button increments the Data Folder. Clicking on Start, the

Data Folder was again incremented thereby producing one additional Data Folder that was not needed.

2410   Auto Save selections in Signal Manager was disabled by the software on a Start command when Use Channel Id as the Signal Name was enabled in the Preferences menu

2560   Signals using the Channel I.D. Label signals can't be recalled

Others:

- Problems encountered importing some ASCII files
- Multiple problems with the use of grouped signals were resolved

Other General Issues:

2700   Uninstall problem - Some versions of software could not be uninstalled

Others:

- There were problems Importing data into MatLab using Signal Reader