

Data Physics Articles

Why Purchase Continued Software Support for SignalStar?

Category: DSP - Controller - Software Release

March 2015

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Data Physics vibration control software products are continually evolving to incorporate customer feedback for both product enhancements as well as product maintenance. With each new major release, new functionality is added to the product. This article focuses on a few of the enhancements incorporated in the latest release of SignalStar Version 2.5.

There were over 50 enhancements made in SignalStar 2.4 vs 2.5. Table 1 summarizes some of the key user functional enhancements.

(Continue to the next page for details)

Table 1: Benefits of the Signal Star 2.5 Enhancements

| Modification | Feature | Benefit |
|--|--|--|
| In Random we added an "Off" selection as a Break point Type in the Reference Limit profile (Figure 1) | Enables user to easily create limits over just the desired frequency bands versus the entire range. | Frequency bands outside the defined range are not subject to alarm/abort/limit conditions minimizing unwanted alarm/abort messages. |
| Run Schedule Icon added to Main Toolbar. (Figure 2) | Provides quick access to the active test's progress. | Enables user to get a quick look of where he is in the run schedule. This can be very helpful when performing loops in the run schedule. |
| Sine Dwell Amplitude can now be entered with a specific G value. | User can define dwell amplitude in either G or dB. | User enhancement which can save time because you no longer need to calculate the dB level required to meet a specific G level. |
| Sine Manual mode operations accessible via Function keys | Enables keyboard to be utilized rather than just the mouse to perform sine manual mode operations. The function keys and their usage include: F5: toggles between Auto and Manual mode F6: Pause/Continue F7: Change direction of the sweep F9: Level Down F10: Level Up F11: Frequency Step Down F12: Frequency Step Up | The user can now take the keyboard over to the shaker and use the function keys to manually search for the resonance. |
| Flexible box tolerances in Sine (Figure 3) | This allows the user the ability to change the horizontal tolerance width to handle profiles with level step changes. | When performing fast sweeps with large step changes sometimes it is necessary to spread the tolerances around the step changes to avoid unwarranted Alarms/Aborts. |



| Modification | Feature | Benefit |
|---|--|---|
| SRS has added the ability to specify a Minimum Te value (Figure 4) | When selecting Sine Beats or Damped Sine's to synthesis a waveform the user now has the ability to enter a specific Maximum Te and automatically synthesizes a waveform that meets this requirement. | Minimizes/eliminates the number of manual table modifications to meet the desired Te. This can significantly reduce test setup time. |
| SRS has added the ability to perform a Full envelope when synthesis is a waveform (Figure 4) | When checked, the waveform synthesis loop will attempt to generate SRS waveforms that are Full Envelope specified in dB above the reference profile. | This is used to guarantee that the entire generated waveform is above the desired reference profile. Some specifications make this a requirement. |
| Classical Shock Pulse Selection Stages can be entered in G's | In Run Schedule the Pulse Levels were previously entered by specifying the dB level of the Reference Pulse. Now you have the option of entering a specific G level. | Eliminates the need to calculate the dB level necessary to get a specific G level pulse. |

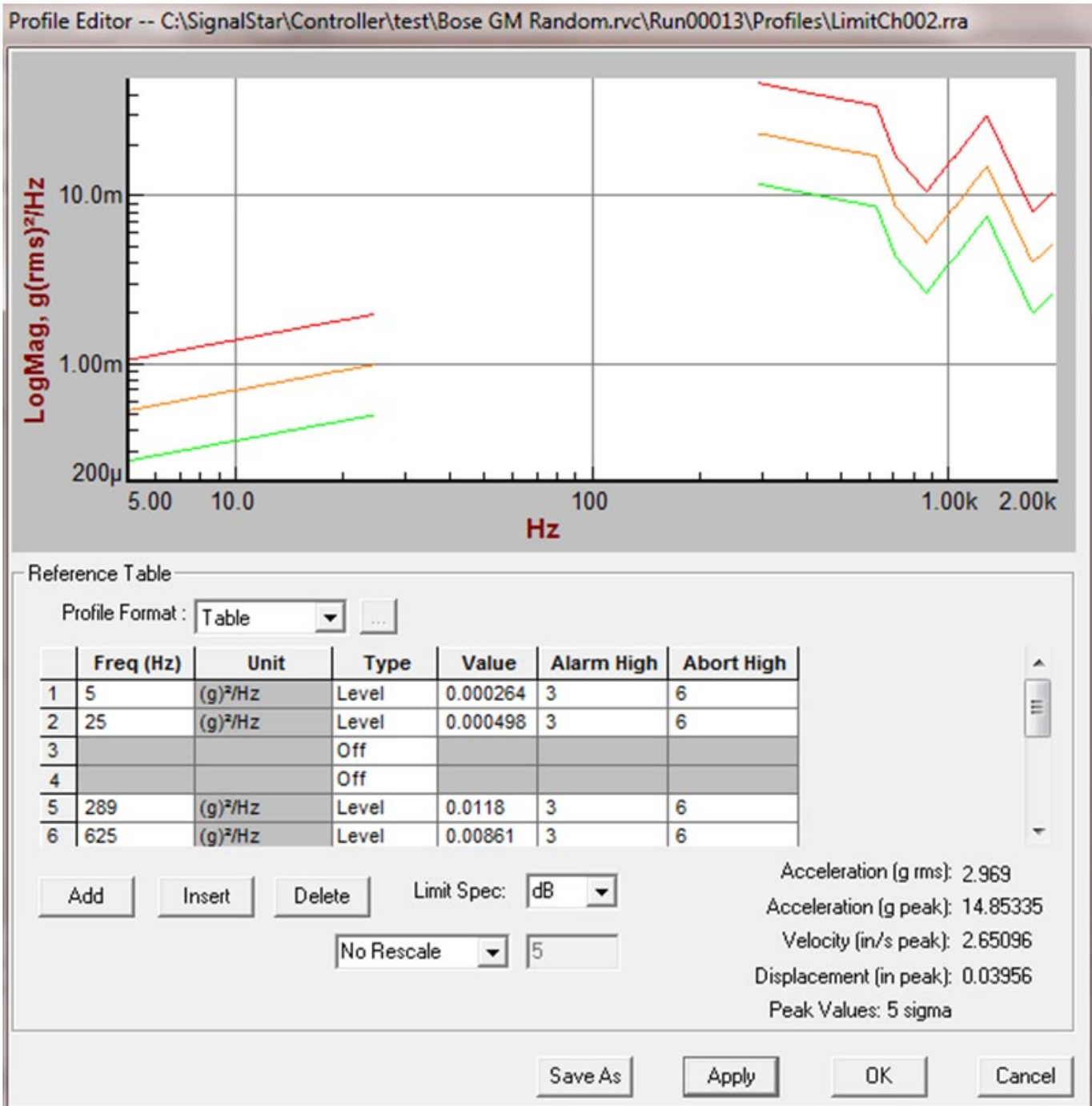


Figure 1: Profile Editor

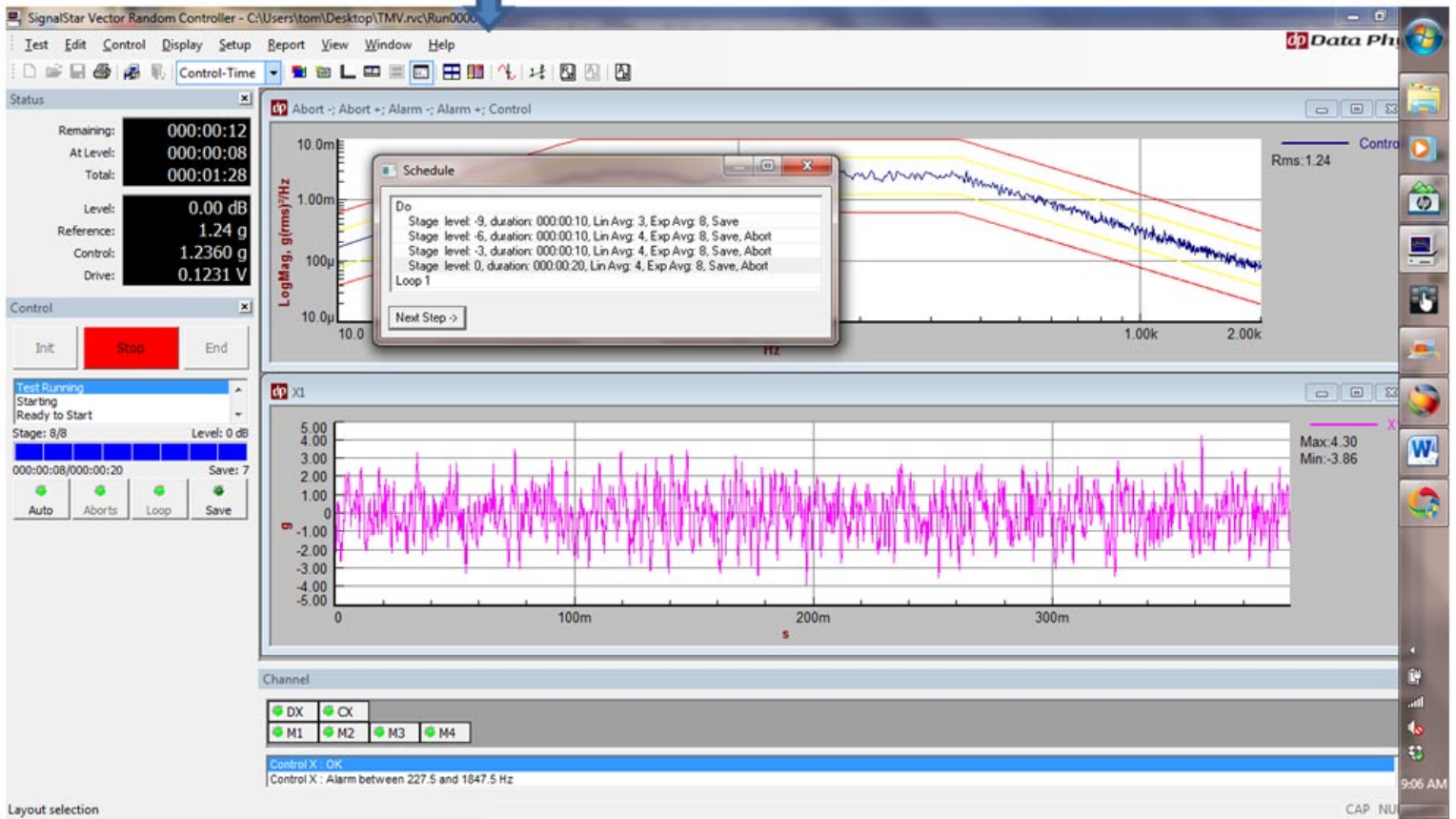


Figure 2: Run Schedule Status

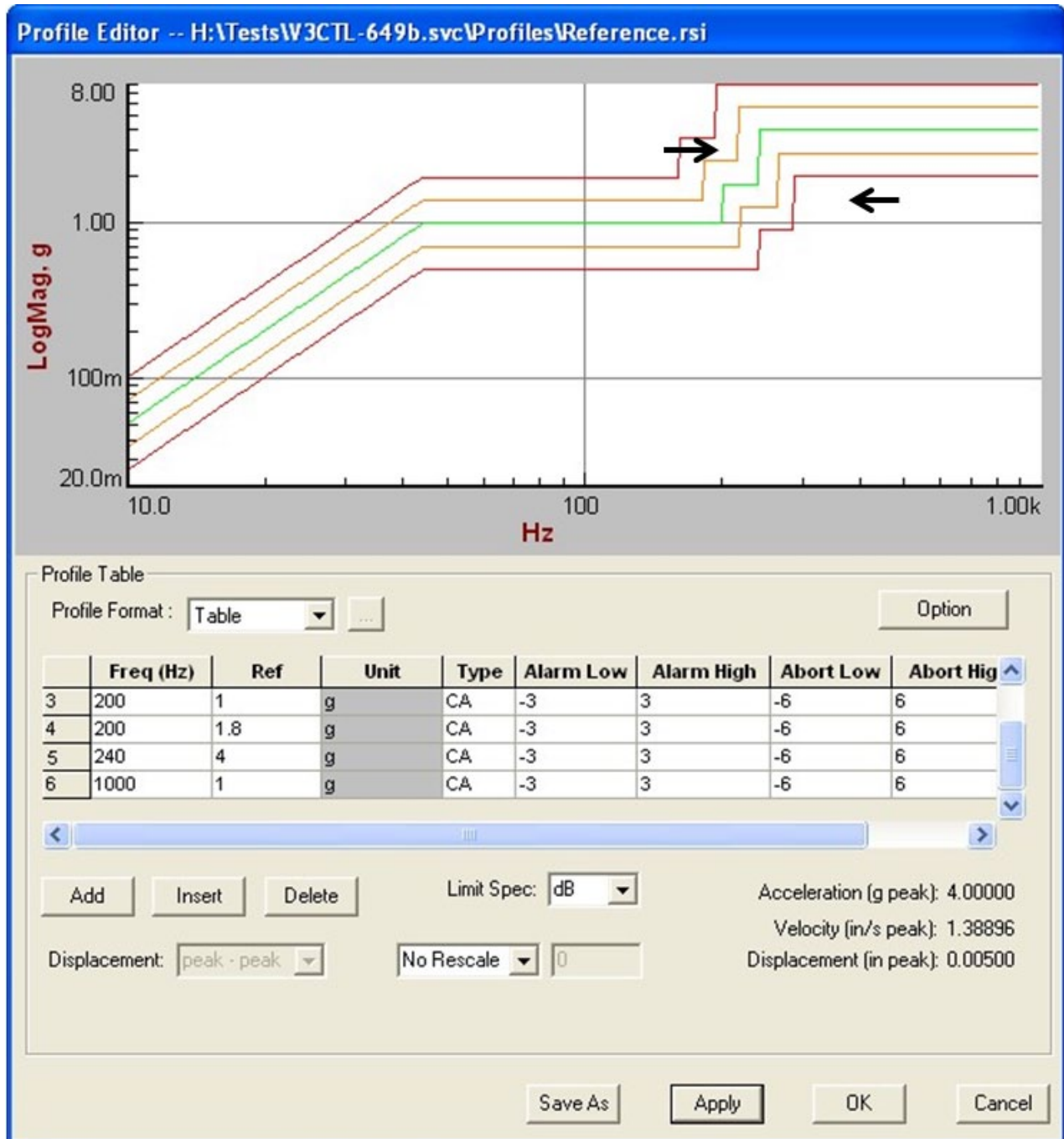


Figure 3: Sine Box Tolerances

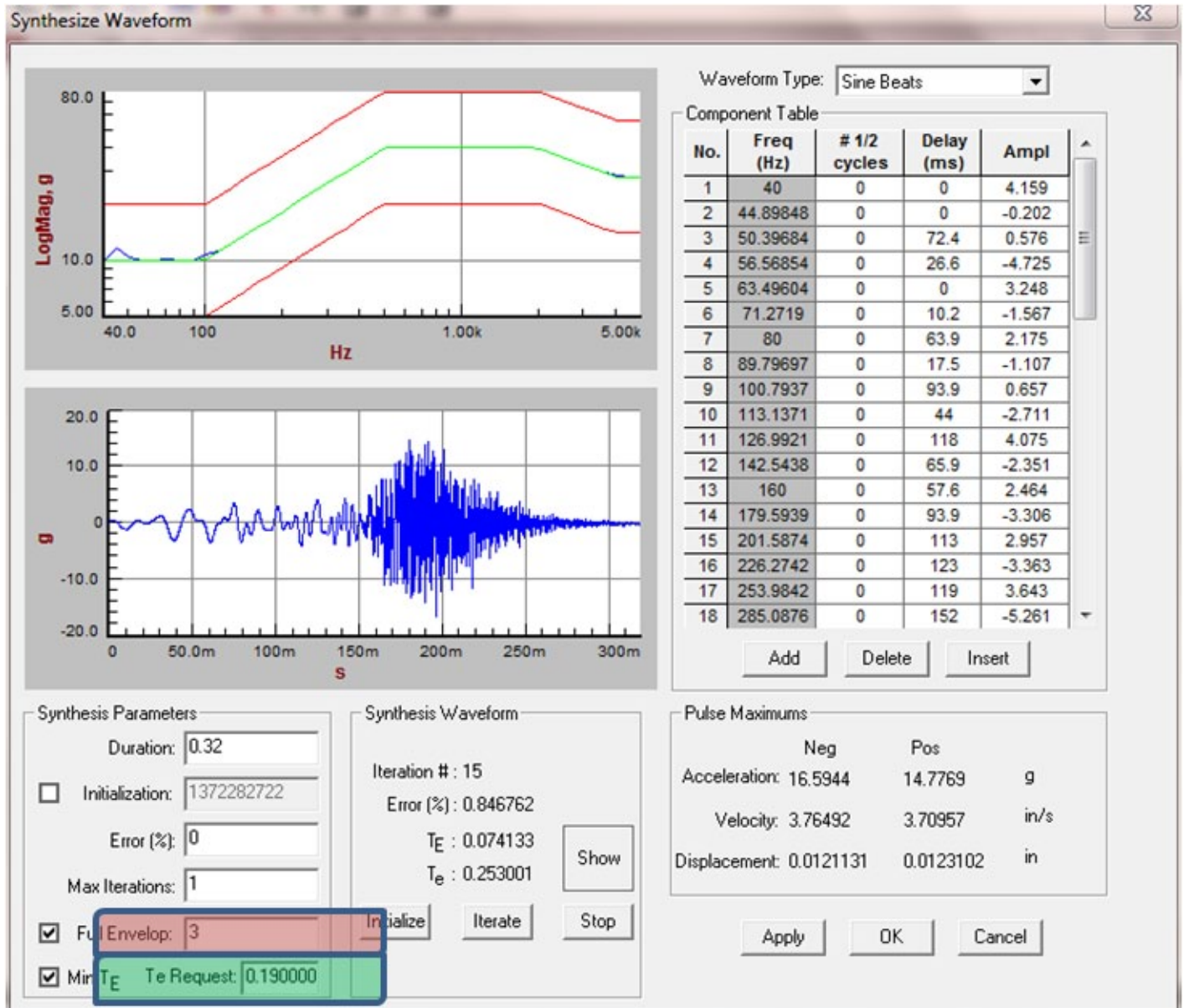


Figure 4: Shock SRS Full Envelope and Minimum T_e