

Friday for Features will take a look on not so well-known features in SATlive, thus helping you to improve your user experience with SATlive.

The topic of today's Fridays for Features is:

Don't let the setup upset you – Setup → Measurement Part II

On the last Friday we've focused on the update – time settings

and on the FFT compensation settings on this page.

Today we'll take a look on some of the options and on the background – delay finder.

You can find the options at the upper left, right below the refresh – time settings.

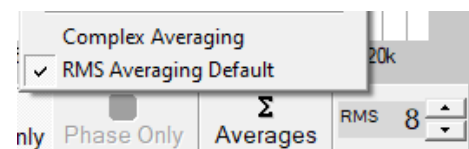
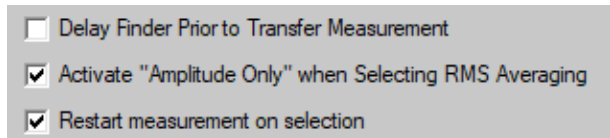
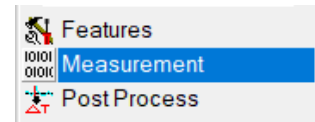
When you select the entry *Delay Finder*

*Prior to Transfer Measurement* then SATlive will open the delay – finder each time you'll enter the transfer – function measurement in the MAT module. This means that the delay – finder will greet you when you start SATlive, when you'll return from a setup window, even when you'll switch back to transfer – measurement from an other measurement, like FFT, impulse – response or RTA. That could be either annoying or a soft reminder to set the delay properly before measuring the transfer – function.

As you might know, the pop-up menu of the averaging setting offers an entry called *RMS Averaging Default* when you open it during a

transfer – function measurement. Averaging only the RMS values of the trace will result in a more stable amplitude – response graph, without showing any phase information anymore.

In this case the phase – display area of the display will not contain any information related to the measurement. The label RMS will show in the value – setting and at the upper right of the display to indicate the kind of averaging selected.

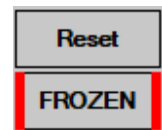


The option *Activate 'Amplitude Only' when Selecting RMS Averaging* determines whether the display will switch to full – size amplitude display when you choose RMS averaging from the menu. Otherwise the display will not change.

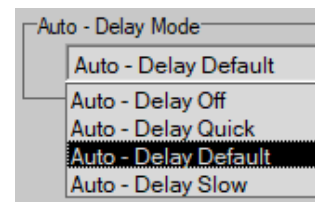
You can use the button *Amplitude Only* at any time to toggle the display.

Double – clicking on the display area will have the same effect. Please note that the *Phase Only* option is not available while RMS averaging is selected.

In SATlive we can use the button *Running/Frozen* at the lower right area to stop and re-enable the update of the current measurement. You can use the space – bar to toggle the update state also. When you change the kind of measurement, like switching from the transfer – function to the impulse – response while the measurement is currently frozen, the new measurement will start only if either the *Restart Measurement on Selection* option is enabled or you toggle the freeze state manually.



During the measurement of the transfer – function an impulse – response measurement will perform in the background. The result of that measurement controls the delay – info at the upper right and the auto – delay settings in the Delay – menu will use it also.



Using the *Auto – Delay Mode* selection you can change the size of that impulse – response or disable it by choosing the entry *Auto – Delay Off*.

Choosing a slower setting, which means a longer impulse – response, will improve the precision of the calculation and increase the delay – range that the function can handle. The trade – off would be a slower refresh of the delay – value. With a maximum of 25 ms delay the setting *Auto – Delay Quick* should be used only for the measurement of electronic devices.

With its maximum delay – detection range of 190 ms, the setting *Audio – Delay Default* will be sufficient for the common applications in the live – audio work.

When the delay is out of the scope of the currently selected range, then you'll face a jumping delay – delay info, showing varying state and polarity information all the time. The setting Auto – Delay Slow will work with delays up to 400 ms.

The background impulse – response is not capable of handling longer delay values. But the delay – finder will cover up to 1 second of delay.

The impulse – response display offers a range of +/- 2.5 seconds for extreme situations.

999,979ms Delay in milliseconds
1.112,07ft Distance
POS Polarity