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Telemetry Dynamic Simulator (TDSIM)

Manual WdAlg Controls

When you assign a Frame Word Algorithm to a word, one of your options for the type of algorithm is Manual. This type allows you to assign a word to 1 of 16 available slider controls, so you can adjust a word value using a slider, instead of programming in a function or canned wave form. You can have multiple words assigned to the same control. These controls allow you to vary the data value for the control, and subsequently the data word(s) that have the respective control assigned to it.

This manual mode works with raw data words, just like the rest of the system (and a real encoder does). If you want to work with parameter data, then you should invoke the User Tool “TdSim_ParameterFader.exe” and read the documentation on that application interface.

When you select Manual as the type of frame word algorithm, you get the window open to set your word commutation up as normal. Below the commutation selection is a dropdown box that lets you assign that word to the desired control slider. Below the dropdown box is the list of the 16 controls. Here is where you edit what the label is for the control, and if you want it visible or not. This same setting is for all wdalg types that use Manual. (It was just a convenient place to put the editor).

For each control, there is a slider, and 5 push buttons. The range of the control is the maximum range of your common word length, i.e. if your common word length is 12 bits, the range of the controls is 0 to 4095. The 5 push buttons are just convenient ways to get to the max value, $\frac{3}{4}$ max value, $\frac{1}{2}$ max value, $\frac{1}{4}$ max value, and 0. Once you move the slider, the button becomes un-pressed.

There are 2 rows of 8 switches (sliders). Each row, or bank, can have their controls ganged together, so what you do on one slider on that bank, the rest of the sliders follow.

Right click on the control section to select the ganged or not ganged bank (bank A (1 - 8) and/or bank B (9 - 16)).

The top of each slider is a label. You edit this label when you assign a word to use a manual control. This allows you to make the labels more meaningful to you. You can also make each slider control visible or not visible. This will help with clutter if you only have a couple sliders you are playing with.

