User Interface for Acquisition of a Logic Analyzer

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Abstract

   In this paper the improvement of a logic analyzer for education purposes is presented. The project is a continuation of a previous year work, the target being to improve the user interface of the previous project. Improvements are addressed to the PS2 reader, FIFO, and Acquisition blocks in order to extend the number of accepted commands and to create a more user-friendly interface.

   The instructions were extended to command word ? like from single character like. The newly introduced commands are: ?setc X?, that allows the change of the displayed trace colors, ?grp? that allows grouping a number of 8 signals on the display in a bus format. The user interface also accepts a ?Set Sample Frequency? command that allows setting of 5 different sample frequencies. The ?start? and ?stop? commands, controlling the acquisition are now written from the keyboard as command words, validated by the Enter key, avoiding in this way an accidental acquisition start, from a single key press.

   This work is in conjunction with the project entitled ?Logic Analyzer: Graphical Interface?, that targets improvements to the graphic part, allowing also user interface command display.