

A New Tool for Visualizing Blaise Logic

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The HRS instrument is modified in the period between each wave both to edit content and to improve existing sequences. One section which has been the focus of multiple redesigns relates to employment and pensions. HRS produced the third major redesign of this sequence for its 2012 instrument. This occurred, somewhat unusually, in a series of face-to-face meetings between HRS programmers, testers, specification writers, and Co-Investigators. The meetings typically involved the use of a projector to demo relevant parts of the instrument and the review of printed specification documents. The redesign was more laborious than it needed to be in part because it was difficult for all parties to envision the effects of changes as they were being discussed.

Afterward, HRS began work on a tool to facilitate the design process in the future. The goal was to develop a visual representation of the instrument which could be useful in such a setting. The tool needed to allow easy-to-follow editing of the visualization which could later be deciphered by programmers and turned into useable code. The result of this effort is a tool named “Visual Blaise,” which will be described at length in this paper. Visual Blaise is a Windows desktop application that graphs the logic of a Blaise instrument one block at a time. The visualization differs somewhat from other tools like Delta in its formatting to allow for more compact and easier reading. The tool also allows elements to be dragged and dropped, cut and pasted, and for the addition of new elements. Finally, it is capable of exporting the logic for each block to a RULES section written in correct Blaise syntax.