

## Coding Tricks to Save Resources

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### **Abstract:**

As computer aided survey administration has developed, the complexity of the instruments being developed has increased. The application software has been asked to do more to customize the administration for each respondent so that the administration is appropriate for each respondent under all possible circumstances. This complexity tests the applications being used to present the instruments by pushing the limits of these applications. As instruments become more complex, innovative methods for dealing with the complexity are necessary to restrict the instrument so that it can be built within the application's parameters or so that it uses resources in a conservative manner.

This paper will discuss some tricks applied to develop a Blaise instrument that would have grown out of control using straight forward instrument coding methods. This instrument had one module that was about a quarter complete and contained over 15,000 lines of code. Typo coding mistakes would have been impossible to find and there was concern that the program would break with each compile. This paper will present some of the ideas and constructs that were used to reduce the amount of code necessary to complete the instrument. Pros and cons of the techniques used will be discussed as well as some lessons learned.