

Abstract Submitted
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Modified GUI for controlling atomic physics experiments ELISHA HABER, University of Rochester — In cold atom physics experiments often need many different pieces of hardware to be controlled with microsecond precision. The Cicero Word Generator, which is a freely available control software developed at MIT, was modified for use in our laboratory. In Cicero, a graphical user interface (GUI) is used to design sequences and to communicate with hardware servers that share a common clock. This allows all events to be synchronized between the different servers. The most important modifications to the GUI include giving the user greater freedom in creating sequences, automating the process of running multiple sequences in series or parallel, allowing the user to implement safety protocols using analog input hardware channels, and adding a more comprehensive data backup system. This modified version of the Cicero Word Generator will eventually be used to control the ultracold atom experiments performed in our laboratory.

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