

AAPT summer 2007 meeting in Greensboro, North Carolina:

## **Flexible software for computer-based problem solving labs**

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### Abstract:

Engaging Introductory Physics students in a laboratory environment is challenging. Laboratories are also constantly changing to accommodate new technology, new pedagogy, or new laboratory ideas. It is important to have a laboratory structure flexible enough to suit both students and faculty. The University of Minnesota uses computer-based laboratory problems to help engage students and encourage them to think critically in a laboratory setting. To provide flexibility, the software is based on a commercial product available in most physics departments, LabVIEW. Here we will discuss the problem structure and software behind the computer-based laboratory pedagogy, its use in teaching laboratories, and its flexibility to adapt instructor preferences.