Abstract Submitted for the DNP10 Meeting of The American Physical Society

**Performance of Object-Oriented Real-Time Control and Acquisition Software**<sup>1</sup> ANDREW COLLINS, University of North Carolina at Chapel Hill — The dead-time of the Object-oriented Real-time Control and Aquisition data acquisition software, ORCA, was quantitatively determined for a VME-based system utilizing a single, peak-sensing CAEN 785N analog-to-digital converter and two scaler modules. A single board computer in the VME crate controls rapid read-out of the modules and the data is then transferred via TCP/IP to the ORCA control program, running on MacOSX, where the data can be filtered based on desired criteria, saved in an open format, and displayed on-line in histograms. A graphical interface allows the system to be configured via "drag and drop" method. The performance tests were performed on ORCA and two other data acquisition systems used at Triangle Universities Nuclear Laboratory, CODA and SpecTcl, to compare the systems' data collection capabilities and determine whether the new system is a worthy competitor of the existing systems.

<sup>1</sup>This work was supported by US DHS grant #2008-DN-077-ARI010.

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Date submitted: 27 Jul 2010

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