

## NSF Supports Portable CAS

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The Kentucky CAS Consortium consists of colleges in Kentucky, and Florida who are exploring the use of portable CAS in mathematics and science courses. Consortium members received two National Science Foundation Instrumentation and Laboratory Improvement Grants this year.

The first project, ***Portable Computer Algebra System Laboratories*** (DUE 9651142) with investigators Anthony L Newberry, Daniel J Curtin, Rodger Hammons, Lillie F Crowley, and Darrell H Abney, was received on behalf of the University of Kentucky Community College System, Northern Kentucky University, and Morehead State University.

The proposal is for a Kentucky consortium composed of six colleges in the University of Kentucky Community College System, Northern Kentucky University and Morehead State University to adapt ongoing graphics calculator and computer algebra system projects for use with the new TI-92 and CBL (Calculator Based Laboratory). The project kicked off with a CAS-CALC Short Course at Northern Kentucky University and adapts already existing TI-82, CBL, and CAS activities to the new hand-held system. The project focuses on calculus instruction, with extensions to precalculus, physics, engineering technology, and teacher training courses at various colleges. The project will give consortium members a `jump start` on exploring appropriate use of the hand-held CAS capabilities in the curriculum. Materials developed by consortium members will be shared via a World Wide Web site on the Internet developed by NKU as well as by presentations at state, regional, and national professional meetings.

The second project, ***Using the TI-92 to Enhance the Learning of Precalculus and Calculus*** (DUE 9650960) with investigators Sharon Griggs, Karen A Estes, and June White, was received on behalf of St. Petersburg Junior College in Florida.

The project uses TI-92 calculators in conjunction with the Calculator-Based Laboratories (CBLs) for its three comprehensive instructional sites to address workforce expectations and help students become active learners in mathematics. With this equipment, students can engage in class or small group projects that solve realistic problems. CAS software has not been available for classroom use in precalculus or calculus, science, or engineering technology courses. Faculty who have used graphing calculators can attend a

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CAS Short Course. Faculty, upon return, can train their colleagues in developing classroom activities using the TI-92 in combination with the CBL in mathematics and science classes. The faculty training and development of classroom activities can be shared via the NKU World Wide Web site and at state and national professional meetings.

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