- **"Helping Exterminate Bugs in Spreadsheets, Web Applications"**
  Newswise (05/05/04)

The National Science Foundation has awarded a five-year, $2.6 million Information Technology Research grant to the End Users Shaping Effective Software (EUSES) project, a six-campus initiative to help eliminate glitches in spreadsheets and Web applications developed by "end-user programmers." Experts reckon that there will be 55 million such programmers by next year, and believe that almost 50 percent of the programs they create will be infested by bugs. Oregon State University computer science professor and EUSES director Margaret Burnett says the project lives by the philosophy of helping end users improve their programming habits as unobtrusively as possible. Burnett and other Oregon State colleagues presented a paper at ACM's recent CHI 2004 conference in which they compared different techniques of notifying spreadsheet programmers that they may have created buggy code; their conclusion was that "negotiated" interruptions (similar to the automatic underlining of misspellings by a word processor) were better than immediate interruptions (such as pop-up error windows). "We learned: Stay out of [programmers'] way, give them hints to explore and they'll get more done," Burnett notes. Carnegie Mellon EUSES researchers Andrew Ko and Brad Myers presented a separate report describing a unique debugging interface that asks programmers questions about "why did" or "why didn't" something happen; users were able to find errors eight times faster and make 40 percent more programming progress. Myers comments that current debugging tools, which date back to the 1940s, are overdue for a serious upgrade. Meanwhile, EUSES researchers at Drexel University, Penn State, Oregon State, and Cambridge University are trying to gain insight into end-user programmers' mind set through observation, while another Oregon State-based EUSES effort is focusing on the development of summer science and technology workshops for middle- and high-school teachers and students.
[Click Here to View Full Article](#)