Consumers who enter formulas in spreadsheets and automate tasks in e-mail or word-processing programs make millions of errors each year, and a study funded by the National Science Foundation (NSF) is seeking ways to prevent the errors. A team of computer scientists at six universities is at work on the End Users Shaping Effective Software project, which is supported by a five-year, $2.6 million research award from NSF. Researchers have completed a study on how best to tell users that they have made errors in their software. The researchers also created a debugging program that helped average users find errors eight times faster and reduce the overall error rate by 40 percent. "For end-user programmers, software engineering isn't their job and should not be," said Margaret Burnett, an Oregon State University professor and the project's leader. "The problem is, in part, motivating them and focusing their attention on their programming errors amid other matters."