

1086-VF-2456 **Nathan C Carter*** (ncarter@bentley.edu), Bentley University, 175 Forest St., Morison 317, Waltham, MA 02452, and **Kenneth G Monks**. *Lurch: a word processor that checks students' mathematical reasoning.*

Lurch is a free math word processor for Windows, Mac, and Linux systems. The user can designate expressions and phrases in their document as having mathematical meaning, and Lurch will check the reasoning and structure in their work, giving detailed feedback about everything from syntax to proof structure. Instructors can teach Lurch the rules they permit in their courses, and Lurch will respect those rules when checking their students' work. This talk will demonstrate the software, cover practical ways it can be used in a course, overview the theoretical framework on which it's built, and mention future development efforts. (Received September 25, 2012)