

1135-68-2032

Nathan C Carter* (ncarter@bentley.edu) and **Kenneth G Monks**. *A Web-Based Toolkit for Mathematical Word Processing Applications with Semantics*.

Lurch is an open-source word processor that can check the steps in students' mathematical proofs. Users write in a natural language, but mark portions of a document as meaningful, so the software can distinguish content for human readers from content it should analyze. This talk reports on the Lurch Web Platform, a system of tools the authors have created as part of a project to upgrade Lurch from a desktop application to a web application. That system of tools is available on GitHub for other mathematical software developers to use in their own projects. It includes a web editor with mathematical typesetting, an interface for marking up documents with mathematical (or other structured) meaning, OpenMath support, meaning visualization tools, and document dependence and sharing features, among others. Time permitting, the talk will conclude with design plans for ongoing development of the web version of Lurch that will be built on the Lurch Web Platform. (Received September 25, 2017)