

1077-F1-1071      **Don Spickler\***, Salisbury University, 1101 Camden Ave., Salisbury, MD 21801. *Linear: Maxima Edition.*

The Linear project is an ongoing software development project at Salisbury University that was started in 2007 with the goal of developing an easy to use teaching and exploration tool for undergraduate linear algebra courses. The package was designed, written and is maintained by both faculty and students at Salisbury University. Our latest addition to the package is the incorporation of the Maxima computer algebra system as a back-end calculation engine, giving Linear the capability of a full CAS while still remaining easy to use, cross platform, and free. In addition to adding many options, as a result of the use of Maxima, we incorporated a LaTeX parsing engine into the display system for textbook-like displays of matrices and expressions. In this talk we will demonstrate some of the advances made to the latest version of the program and showcase some of its more pedagogical features. (Received September 16, 2011)