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**Chris Rasmussen** and **Karen Allen Keene\*** ([karen\\_keene@ncsu.edu](mailto:karen_keene@ncsu.edu)). *Software Tools That Do More with Less.*

Over the past decade we have been engaged in creating and investigating innovative learning environments in differential equations that make use of a wide range of technologies, from applets to mainstream software such as Maple and Mathematica. A key distinguishing feature of the applets we use is that they do much less for users than many of the prepackaged, commercial software tools. In this report we illustrate a less-is-more applet that students use at the beginning of a first course in DEs. The applet requires the user to input a DE and then simply allows the user to move a point and its associated tangent vector around in a corresponding slope field. The applet does not sketch in a solution or provide any type of analytic or numerical solution. This minimalist approach requires students to creatively imagine the behavior of the solution functions for the given differential equation. As a result, students conceptually distinguish between an exact solution and an approximate solution and eventually reinvent Euler's method. In this presentation, we present examples from this work. (Received September 22, 2015)