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Customizable graphical user interface applets integrated with WeBWorK calculus problems.

We will present a collection of applets created in Adobe Flash which are made to be embedded in WeBWorK problems. The applets allow calculus concepts to be communicated graphically between instructor and student, by allowing function graphs to be shaded, labeled, and investigated by the student according to criteria set by the problem author. Customization is possible within the PG code defining the WeBWorK problems, without the need to alter the Flash applets in any way. We will present several examples of applet enhanced WeBWorK problems, and discuss some of the pedagogical approaches and challenges associated with this type of user interface. This work is supported by NSF-DUE-0941388. (Received September 23, 2012)