While the grading of assignments composed of objective type questions is typically straightforward, efficient grading of responses to more subjective assignments such as class projects and e-portfolios continues to remain a challenge. We have designed our rubric developer and grading tool to address some of these challenges. This tool enables instructors to: 1) design a rubric by setting grades and feedback, and 2) use the resulting rubric to automate much of the grading process. The interface is extremely intuitive — the grader simply clicks on cells to assign points, this dynamically updates the grade report and inserts appropriate feedback. A click of a button generates the grade report which can then be emailed to the students. (See Figure 1.)

We have used this tool with great success in grading class projects for an introductory course in GIS. Approximately 120 adult professionals take the course each quarter, during which they draft two "lab" reports projects (which requires a very structured rubric) and one research paper (which requires more subjective grading). The tool has been used effectively in both situations providing highly detailed and personalized feedback. We have found the tool to be efficient and scalable. We were able to train assistant instructors to use the tool in less than an hour. The scores produced were more uniform amongst different graders while time spent grading was cut by one-third.

The tool was built using Web 2.0 technologies — JavaScript, XHTML, DOM, CSS and AJAX. During our presentation we will describe the design of the tool and demonstrate how it is used. The tool can be freely downloaded at: https://www.e-education.psu.edu/facdev/id/assessment/rubrics/rubric_builder.html