Summary of July & August 2009 Key Activities

During July and August, 2009, RENCI@NCSU began new collaborations with the Textile & Apparel Technology & Management Department at NC State University. We also worked on visualizing new data sets provided to us by the Friday Institute for Educational Innovation. In a collaboration with the UNC Chapel Hill Institute for the Environment, we received notification that our joint research proposal had been funded by the National Aeronautics and Space Administration (NASA). Our work was presented in a talk entitled “Applying Color Theory to Creating Scientific Visualizations” at the Association for Computing Machinery’s Special Interest Group on Graphics’ annual conference (entitled SIGGRAPH 2009). We continued our collaborations with the Textile Engineering, Chemistry & Science Department. Our outreach activities included tours for high school students from Alamance County and visiting undergraduate computer science students from Venezuela as well as a presentation to first-year women engineering students in NC State University’s College of Engineering.

New Visualization Work for the College of Textiles:

Collaborations with Dr. Abdel-Fattah Seyam and his student, Ahmed Hassanin, of the Textile & Apparel Technology & Management Department at NC State University resulted in Steve Chall producing the visualizations shown below.
New Work for the Friday Institute for Educational Innovation:

Working with data provided by Trip Stallings and Lee Sartain of NC State University’s Friday Institute for Educational Innovation yielded the visualizations shown below. Chris Williams produced the image on the left while Sid Thakur produced the image on the right.

Continued Textile Engineering, Chemistry & Science Department Collaborations:

Continued collaborations by Sid Thakur with Dr. Melissa Pasquinelli and her student, Syamal Tallury, of the Textile Engineering, Chemistry & Science Department at NC State University resulted in the visualization shown below.

RENCI@NCSU Outreach Activities: Supporting NCSU & RENCI Activities:

The RENCI@NCSU staff contributed to several outreach activities in July and August 2009. These include:

(1) July 20, 2009: Participation in the NCSU College of Engineering tour for high school students visiting from Alamance County, NC, out of the RENCI@NCSU Engineering Building II Room 1235 facility.

(2) July 28, 2009: At the request of Professor Robert Fornaro in the NCSU Department of Computer Science, RENCI@NCSU staff provided a tour of its Partners I Suite 1500 location to 18 visiting Venezuelan students.

(3) July 29, 2009: Contribution to a panel presentation by Theresa-Marie Rhyne for first-year women engineers in the ESCAPE summer camp. This camp is sponsored by the NC State University Women in Science & Engineering (WISE) program.

(4) August 6, 2009 High Definition Video Conference between the RENCI anchor site and RENCI@NCSU to discuss potential visualization collaborations between the RENCI biological & medical sciences unit, RENCI@UNC Chapel Hill, and RENCI@NCSU. Ray Idaszak, Director of RENCI’s Collaboration Environments Group, coordinated this session.
Venezuelan students visiting the RENCI@NCSU Partners I Suite 1500 location on July 28, 2009.

**Collaboration with the UNC Chapel Hill Institute for the Environment:**

On July 6, 2009, principal investigator Uma Shankar of the UNC Chapel Institute for the Environment informed RENCI@NCSU that our collaboration proposal received funding from the National Aeronautics and Space Administration (NASA). Steve Chall of the RENCI@NCSU team will serve as technical lead on the visualization portion of this externally funded project.

**RENCI@NCSU Video Featured on RENCI web site and in International Science Grid This Week:**


**Presentation at ACM SIGGRAPH 2009:**

On August 4, 2009, Theresa-Marie Rhyne gave a talk at SIGGRAPH 2009 entitled: “Applying Color Theory to Creating Scientific Visualizations.” SIGGRAPH is considered to be the world’s première conference on computer graphics and interactive techniques.

**The RENCI@NCSU Team:**

The RENCI@NCSU team is currently composed of Steve Chall, Senior Research Visualization Software Developer, Dr. Sidharth Thakur, Senior Research Visualization Software Developer, and Theresa-Marie Rhyne, Director. Due to budget cuts, our student intern, Chris Williams, left RENCI@NCSU on August 14, 2009. On August 12, 2009, Theresa-Marie learned that she will be departing on November 10, 2009.