

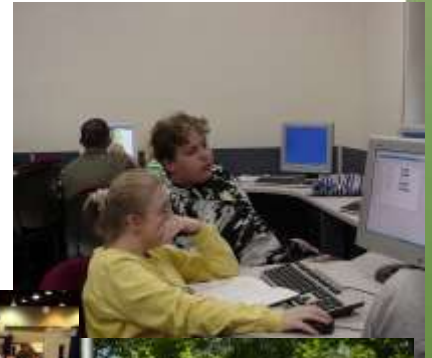
The EAST Initiative

www.eastproject.org

www.cast.uark.edu



From one school in 1996 to over 200 schools in 2003, CAST has supported spatial technologies used by the students of the EAST Initiative. EAST is a student-centered, project-based service learning initiative that allows students to acquire and apply the technical and personal skills relevant to today's world. Over 10,000 middle- and high-school students have access to spatial technologies through the EAST Initiative.



Project-Based Learning

In the mid-1990s a teacher in a rural Arkansas high school was tasked by his principal to find a way to get students more interested and involved with their own education. The teacher, Tim Stephenson, turned to project-based learning, as many other teachers have attempted. One of the key differences in Tim's approach was that he chose to incorporate modern computer technologies as key tools for his class to use. Being neither well-funded nor strongly technology literate, he recognized that his best chance for achieving his objectives was to seek out partners, both in the private sector and in higher education.

As Tim and his students progressed through the school year, together they created the first "Environmental and Spatial Technologies" lab, or EAST, at Greenbrier High School. Almost a decade later, EAST has become a national leading-edge not-for-profit education initiative, with programs implemented in over two-hundred schools in seven states, affecting the learning of more than ten-thousand students in grades 6-16.



The EAST Philosophy

The Center for Advanced Spatial Technologies (CAST) is proud to have been one of the very earliest partners of the EAST Initiative. In 1996, when Tim's EAST class acquired Geographic Information System (GIS) software and graphic workstations, they were among the only high school students in the country to have access to such technology. As they began to realize just how complex a field they were getting involved with, they made contact with researchers at CAST who were able to supply geographic data for their locale. When the State of Arkansas became interested in expanding Tim's idea into twelve additional schools, CAST was asked to provide training in GIS and Global Positioning Systems (GPS) for students and teachers from each school. From that point on, CAST became a committed partner with EAST, while CAST staff became fervent believers in the EAST philosophy:

- All students have value and deserve the opportunity to demonstrate their value to their school and community.
- Educational experiences must be relevant, challenging, purposeful, and student centered.
- The physical educational environment must include state-of-the-art, real-world tools and reflect a work-like setting.
- Educators should serve as resource guides, managers, and learner facilitators.
- Learning should be self-directed as much as possible and oriented towards real-world projects that engage students in independent and interdependent roles.
- High expectations must be individually established for all students and must drive their efforts to achieve their potential.

EAST has quickly become a national leading-edge not-for-profit education initiative.

A Wealth of Resources

Today, CAST staff members provide a wealth of resources and support for EAST students and facilitators. CAST provides project-based training for students in GIS and GPS, computer animation, digital video editing, and web design. Since the spring of 2003, CAST and the University of Arkansas have hosted the Northwest Arkansas EAST Training Center, located in Ozark Hall. This state-of-the-art training facility also provides EAST students with an inside look at life on campus, helping to inspire more high school students to pursue a college degree. CAST staff members also provide training at EAST facilities in Little Rock, Chicago, and Sacramento.

One of the keys to EAST's success has always been the personal touch, even as the initiative has reached national proportions. CAST plays a major role in this effort, with support specialists visiting EAST labs in more than fifty schools each year. E-mail and phone support permit close contact even when a physical visit isn't practical. CAST has also hosted a student support e-mail list server with more than 8,400 participants for the last four years, providing peer and expert support for all EAST students.



CAST has also concentrated on developing scalable resources that are accessible by all EAST students. The creation of the EAST Geospatial Virtual Camp has been central to this effort. The Virtual Camp consists of a custom web-based framework and a series of courses built within it. Current courses focus on Intergraph GeoMedia (GIS software) and Trimble GPS hardware and software. Each interactive course includes theory and examples, pop-up review questions, hands-on exercises, and objective quizzes. The Virtual Camp structure also features a comprehensive search engine, permitting students to use the site for reference as well as instruction.

Complementing the Virtual Camp site are the EAST Support Pages, a series of web pages that contain and link to a wide variety of invaluable resources for EAST students. CAST has assembled a broad array of geographic data, FAQs, tip sheets, and other tools to help students in their pursuit of GIS and GPS projects.

No discussion of EAST would be complete without mentioning the two EAST Regional Conferences, which occur each February in Little Rock, Arkansas, and Sacramento, California. Ten students from each EAST school attend their three-day regional conference, sharing projects, ideas, and knowledge with hundreds of other students. CAST has a strong presence at both conferences, providing hands-on training seminars, one-on-one assistance to students, and a wealth of demonstration materials. Anybody interested in learning what EAST is really about should be sure to attend the EAST Conference!

In the end, the success of EAST can be best attributed to the willingness of all involved to go the extra step. At CAST, that means always looking for new opportunities for EAST students, finding better ways to share our knowledge, and spreading the word of EAST to all who will listen.

About CAST: The Center for Advanced Spatial Technologies (CAST) focuses on education, research, and service to the public, which forms the backbone of the CAST purpose and mission. CAST specializes in serving the academic community through its emphasis on university courses in Geographic Information Systems (GIS), Global Positioning Systems (GPS), and related technologies. CAST's research efforts, through multiple grants awarded each year, compliment and greatly benefit its educational and public service focus by allowing staff and students to stay on the leading edge of emerging technologies. CAST is also active in a wide range of services to the university, community, state, nation, and internationally. By building upon the expertise of the staff; the cooperation of the university community and state, regional, and local governments; the support of corporate sponsors; the assistance of federal agencies; and many others, CAST can blend its focus on education, research, and public service to multiply the benefits of all these cooperative efforts.

