

Making a Difference

Dr. Bob uses Envisioneer software to inspire his students, help the police, and much more.

Profile

Bob Molkenhain, a.k.a. "Dr. Bob", began teaching table drafting in New Jersey's Lacey Township School District 32 years ago. As technology progressed, computers started entering the classroom.

With the help of a grant in the late 1980s, Dr. Bob was able to purchase his first two computers and a plotter. He began visiting Engineering firms to find out what software he should buy, and discovered that AutoCAD® was the national standard. Dr. Bob's Computer-Aided Design & Drafting (CADD) program was soon part of the curriculum. It was the beginning of a wonderful career, and a journey on which few teachers had embarked.

In the early 1990s, Dr. Bob was introduced to 3D modeling and 3D animation by IBM engineers. His CADD program evolved further, and in 2000 became nationally recognized by Tech Direct magazine as one of the "Most Outstanding Programs" in the country. He has since appeared on the television show "Classroom Close-up" and received several awards, including the Governor Award for Outstanding Teacher, and an Outstanding Citizenship Award.

Dr. Bob knew in the early nineties that 3D was the future. Although major engineering firms were seeing the need for 3D modeling and animations in their practice, school boards were hesitant to make 3D part of the curriculum. Dr. Bob did not back down. He gained national recognition for his 3D modeling and animations and traveled from state to state "preaching the gospel of 3D" to anyone who would listen.

In 2005 it was time for Dr. Bob to leave New Jersey and retire. Out of boredom he started a part-time business drafting and consulting for local builders. In April 2006 he was asked if he wanted to teach a CADD class at Aiken County Career and Technology Center in Warrentonville, South Carolina. He decided to consider it.

At the time the students were using standard 2D drafting software, but some expressed interest in using 3D software.

3D would soon be back in Dr. Bob's life.

Upon entering the Cadsoft booth he began asking a round of tough questions. The salesperson was able to solve every problem that Dr. Bob came up with. Wanting to know more, he attended every demonstration possible and soon knew he had found what he was looking for. "As soon as I saw the Envisioneer software, I knew my mission as an educator was not over. I accepted the job at Aiken County Career and Technology Center. All I could think about for days was the different ways I could use the software."

"Envisioneer does everything I need to do a better job for the builders I work with, and puts my students on track for exciting job opportunities."

Bob Molkenhain
Educator and CAD Consultant



Community Connections

What is unique and noteworthy about Dr. Bob's CADD program is the liaison between Dr. Bob's students and the community. Corporations and local businesses give students an opportunity to complete real-world projects for them. In doing so businesses are able to see what great skills and talents these students can offer. Lucent Technology, IBM, Xerox, Intel, and GPU Nuclear Energy Plant are just some of the major corporations that have worked with his students.

Making a Difference

Dr. Bob's vision has made way for some innovative ideas and opportunities to help his community. An ABC affiliate television station featured one such project on the local news. Dr. Bob's class used Envisioneer to create 3D maps of local schools that can be used by law enforcement officers in a Shooter/Intruder Emergency situation to help avoid another Columbine tragedy. The maps show major details, such as chemical storage areas and exit locations. "Right now we're limited to looking at diagrams that have no dimension and so it may help us better visualize the school or industry we're going into," states Lt. Michael Frank, Aiken County Sheriff's Office, South Carolina. The maps are now being used statewide.

The Great Reward

Although Dr. Bob's work with Envisioneer continues to earn him many community and "Teacher of the Year" awards, the greatest reward for this passionate educator is the impact he has had on his students and community. By working directly in the community, students have gained some professional experience, boosted their self confidence and self respect, and gained a greater respect for the community. Their work has earned publicity for the school, and inspired other teachers and students to follow suit. "It is amazing how Envisioneer did so much for my program and the school. It has improved our relationship with the community, with other teachers, and with each other," he states.

Dr. Bob continues to look for new and exciting ways to use Envisioneer to inspire his students and make a difference in his community.

To learn more about Envisioneer, please visit www.cadsoft.com.



Achieved with Envisioneer:

- **Home Sales**
Students helped to sell two custom homes being built in the community.
- **Theater Stage Design**
Students helped a local community theater group design a set for the play "Sweeney Todd".
- **Forensics Diagrams**
Students are working with the local Sheriff's Department to recreate crime scenes in 2D and 3D to help solve crimes. Students created emergency diagrams and 3D models of district schools to be used by police officers in a campus emergency. For the full story go to: http://www.wjbf.com/jbf/news/state_regional/south_carolina/article/-JBF_2008_02_15_0006/1172/
- **TV and Movie Production**
Students are working alongside television and film professionals at an Orlando, Florida production facility creating set designs and models of industry equipment.