

Interactive tree identification map for Dorman High School

Kara Allen and Dr. Suresh Muthukrishnan

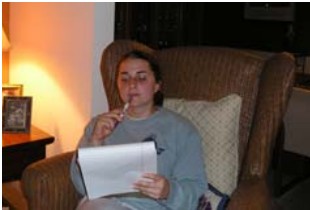
Abstract

Over the summer, an educator from the high school in my hometown approached me about creating an environmental educational guide for their new campus. In 2002, Dorman High School moved from W.O. Ezell Boulevard to a 300-acre campus sandwiched between Interstate 26 and S.C. Highway 221. Two new schools were built on the property, a ninth-grade building as well as the main campus housing grades 10-12. This past year over 200 trees were planted on the campus to enhance the beauty of the property. However, I believe that the wide variety of tree species made the campus an ideal classroom for teaching tree identification techniques to high school students. Using aerial photographs of the Dorman High School property, and the Google Earth application, I created an educational tool that hopefully will give students hands-on learning experiences about the nature around them. The map locates and identifies individual tree species across the campus, and at the 'click of a button' gives common characteristics, and traits about each species.

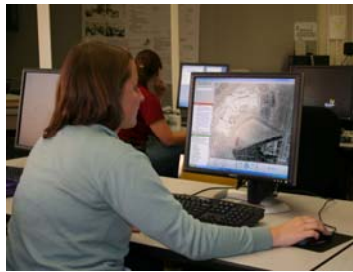


Using a master copy of the landscape plan I obtained from the high school, I added point locations (placemarks) to the map, representing an area of individual tree species.

How did I do it?



First, I spent many hours contemplating the best and most efficient way to create an interactive tree identification map of Dorman High School.



I placed Spartanburg County's aerial photograph of Dorman High School over the Google Earth program, and joined the two images together by georeferencing the aerial photograph with the satellite images provided by Google Earth.



I created web pages for each of the different tree species, defining traits and characteristics of the species as well as giving links to photographs of the trees. Finally, I added the web addresses to the placemarks on the map, making the information easily available to the students.



Next, I met with Dr. Suresh to discuss my ideas and get feedback. After a long discussion we decided that using Google Earth would create the best map and not only expose students to trees on campus, but also a new, amazing, and free GIS application.

References

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Thanks for stopping by!

My name is Kara Allen and I am a recent graduate from The University of the South in Seawee, Tennessee, where I recieved a BSc in Natural Resources. Currently, I am taking several courses at Furman University in Greenville, SC, trying to beef up my undergraduate transcript. In the near future, I would like to get my MSc and possibly a Ph.D. in environmental science. Other than that I enjoy travelling, watching stupid tv sitcoms and spending time outdoors.

I am taking Introduction to GIS, because I believe that by participating in this course I can gain the knowledge and experience to be able to use ArcView on independent research projects, whether it is through my graduate research or future career.

Results



Here it is, my final map! Students as well as Spartanburg County residents will be able to access the map online, thanks to Google Earth and Furman University. As you can see, small tree icons cover the campus representing the locations of different tree species, along with the common name of each of the species. Double clicking on the 'cartoon' tree leads you to a web page displaying and describing the individual tree species. The map marks the location of many of the trees along Cavalier Drive, the main road around the campus, and many of the trees are easily accessible from both campuses. My hope is that teachers will be able to use the map to create for their students an interactive fun, and exciting way of learning about the landscape around them.