



2004 EAST Training

Next week, EAST will be hosting VRDL training for its newest Arkansas labs. As last year, the training will consist of a comprehensive guide through the basics of the VRDL and how to complete the tasks associated with virtual tour construction.

The students will be exposed to everything VRDL in a two day course designed to give them the knowledge they need to complete their very own virtual tours.

First they will explore the fascinating world of panoramic photography. They will learn to take fisheye and traditional photographs in various environments and learn how to integrate them into different mediums.



Next the focus will be placed on digitally manipulating the photographs and converting them into VR.

Armed with an arsenal of images, they will connect them together to shape their unique virtual world.

Finally, their creation will be viewed in Virtual reality with the included Virtual Reality Head-Mount system which will complete their initial VRDL training.

The participants will be awarded with completion certificates and there will be an informal contest for the best training project assembled in the class.

Last year was quite fun, as I expect this year to exceed the previous in both the amount of knowledge retained and fun levels.

VRDL - The Possibilities

One thing that always amazes me when I meet people about the VRDL is, quite literally, watching their thought processes change. Seeing the light bulb switch to the "on" position while their facial expressions explode in response to the flood of new ideas and possibilities. The marvel of discovery is a powerhouse in learning and the VRDL provides an endless supply of it.

Like a tree, all the mind needs is a small seed, and a few nourishing ingredients for a sprout to flourish into a great Oak. The beauty of the human mind lies in its ability to grow an unlimited amount of sprouts and



nurture them all into gargantuan monuments to knowledge with an endless supply of branches and possibilities - all with only a small bit of "water" and some "sunlight".

The Seed... A Simple School Tour

Lets start off with the seed. Lets face it, this is the very first project a school usually tackles because it is readily available and requires little planning. This is the perfect project to create and use as a springboard to some wonderfully innovative ideas.

Before we begin, have you asked yourself what you plan to do with the tour once its finished? Its easy to start shooting panos and creating tours, but why? Who will see it? Why will they want to see it? And, how will you deliver it to them? These questions are a bit out of the scope of this article but they are the most important questions to find answers to. It is with the answers to these questions that you will find innovation, creativity and purpose.

Now, lets look at some possibilities... the nourishing ingredients.

New Student Orientation

Remember when you were a new student? You were probably scared not knowing what to expect. You pelted yourself with questions like: What will my teachers be like? Will I be able to find my class without looking like an idiot? Where is the office and cafeteria? One question we don't think about until it's too late is: Where are the bathrooms???

Now, imagine before the first day of school your counselor introduced himself/herself and handed over your class schedule. He instructed you to sit down for a Virtual Reality orientation tour where you were instantly transported into a virtual representation of your new school. In VR, you would find your classes, walk into the classroom and have the opportunity to actually "meet" your teacher where she would introduce herself and welcome you to her classroom. Perhaps she could even tell you what she "expects" from you and explain a bit about what you will be learning. At this point, since you have familiarized yourself with a large amount of the unknown, how much do you think your nervousness would have been lessened with such a tool?



Pursue this project by shooting lots of panoramas! Make sure you have at least one for every classroom, hallway, building and common area. Trust me, It is better to have too many than not enough. Shoot 2 or three locations in larger rooms and areas. Don't forget to log all your shots!

Fire Safety

You can create this type of tour with all the detailed panorama locations taken in the previous example.

Chart out your fire escape routes and create a tour. Now create a tour with graphically implemented "fires" in the normal escape routes. This will teach the student alternate routes in the event of an emergency, exactly like fire drills.

Virtual Yearbook

This is personally one of my favorites. Supplement your annual yearbook with a Virtual Yearbook Edition.

Have each grade level gather out in the football field. Take a number of panoramas and hotspot the faces allowing access to specific information about that student. Create student profiles, link to their interests and organizations. Do the same thing for clubs and sports teams in the school then link them all together in an incredibly innovative experience! Capture important events, locations or field trips. Document the staff and the year's experiences in VR with interviews, object movies, and pictures.

The Tree Grows

I have planted the seed and supplied only a few nourishing ingredients. I can almost guarantee that your mind has now been thrown into motion thinking about new possibilities with the VRDL.

From your conception of the VRDL and its role in your school before this article until now, try to remember what just happened and what it took to get your mind swimming with ideas. Now, go apply that to everything else in your life! Good luck!

Letters to the DTF Guys...



DTF strongly encourages anyone to write to us with their stories, project ideas or just to simply say hello. We will write back and maybe even include your article in our newsletter!

One of the first letters comes from an EAST student in Arkansas:

I have had a lot of fun with the VR equipment. Though the software was hard to learn, I have enjoyed the challenge that has become a great new adventure for me.

I am anxious to attend the Virtual Reality training in Little Rock, AR on October 6th 2004. I am looking forward to the hands on training that will expand my knowledge of VR. So far, with no past knowledge of the software, we have been successful with only the information that the book provided. We have successfully created QTVR's and hotspots for the tour of our school.

This equipment is very exciting and has made me realize that our schools may actually have a future.

- K.C. Knoblock of Monticello East lab



Letters ... (Continued)

We recently received a letter from one of the instructors at Lamar High School in Arkansas:

I would like to tell you how very impressed I am with the Virtual Reality Development Lab. We have had the VRDL in our school district for two years now. During this time I have seen our students truly excited about using the technology. One of the many benefits of the VRDL is that it is developmentally appropriate for all students. I have watched our students from both ends of the spectrum succeed and be drawn into the excitement and exhilaration of the real life connections that they are creating. Our advanced students find themselves drawn in by the system's intriguing possibilities, only to come out with a unique final product that reflects potential and exceeds expectations. Even our reluctant learners are empowered by the ease of using the VRDL and their success raises their self-esteem, which in turn motivates them to repeat that success.

I am thoroughly impressed with the constant professionalism shown by the staff at Digital Tech Frontier. Each one of you are dedicated professionals that work diligently, devoting your time and effort to ensure customer satisfaction.

During my ten years while working in education, I have never come across technology like the Virtual Reality Development Lab. The VRDL along with Digital Tech Frontier will open new doors for students, across the United States, to visualize and create endless possibilities. I truly believe the leaders of tomorrow will benefit from the new opportunities offered and essential skills learned by using the VRDL today.

In December 2003 we received a grant from Wal-Mart and took two students



The DTF Team:

(left to right) Paul Dwinell - VRDL Director, Kyle Rogers - Art Dept, Katsin Openshaw - Equipment Specialist, Scott Jochim - Boss-man



DTF Office (The Waterin' Hole)

to our nations capital, Washington D.C. We toured the monuments and other tourist attractions and captured their significance and beauty through pictures. After returning home, the students created a virtual tour of Washington D.C. making a distant dream accessible to the local community. The tour was later used for the EAST competition in February 2003 where we received an excellent rating.

The students are now in the process of creating a virtual tour of our school for new students. We want new students to feel welcome and we feel like this will make students feel at ease in a new

environment. At LHS, we are looking forward to the endless opportunities that we can create using the VRDL. Thank you Digital Tech Frontier!

- Jeanna Cook, Media Specialist

Thank you Jeanna for the wonderful comments! I wish you and your team the best of luck in the coming semesters!

From the Guys...



Hello to everyone. Welcome to the VRDL's very first News Letter!

We are very excited to offer the VRDL community a window into our world where we look forward to serving up information at least four times a year. This periodical will help keep everybody in the loop with what goes on in VRDL- land and to facilitate communications between schools, students and facilitators across the country.

In future editions, we will present how-to's, tips, tricks, along with beginner through advanced level tutorials for the VRDL as well as some relevant industry information regarding jobs and technology direction.

We are striving to make this the humble beginning to a strong educational community built to span the distances between those with common goals and bring them together promoting a truly collaborative learning environment without physical boundaries.

Thanks to all the folks reading this newsletter. You are the ones who have made the VRDL what is today

From the Guys... (Continued)

and those who will help to populate its future tomorrow!

DTF would also like to offer a special "Thank You" to everyone at EAST for helping the VRDL become a reality! You are all incredible! Wooohoooo!!!



- Paul Dwinell
VRDL Division

Live Tech-Support

A reminder to all those wonderful students digging their noses into the manual, that online LIVE Video conferencing tech-support is available during business hours. The support is available most Mondays through Fridays from 9:00 am - 5:00 PM.

So, if you are having trouble with something, fire up your iSight video camera, set-up iChat AV and send me an invitation. My screen name is "VRDL Dev". You can also reach me through AOL Instant Messenger with the same screen name.

I look forward to hearing from you to help you through the "rough" spots.

Pano-Boy says...

When shooting Hemispherical 360's remember a few things:

- Shoot in the center of a room if possible
- Plant interesting items closer to the camera if you want to use them as a hot spot later.
- Try to shoot at least 2 sets of photos if you are not stitching panos on site.
- Have a partner to help stop people from coming into your shot. (Photoshop-ing them out can be a real nightmare sometimes)
- **Always** reset the Exposure after every pair of shots. (If you do not do this, your images will be all white in future locations)
- Think about how you viewers will move from room to room. Shooting a room is important but sometimes also shooting the transition area between the rooms can help the user to see where they came from and where they are going.
- Shoot at the highest possible Resolution (Tiff). You can always scale down later.
- Have fun! Panos can be about places, spaces or even time

lapse (construction site or phases of the moon)

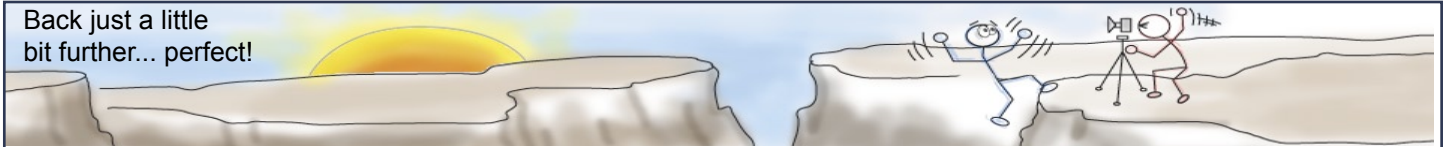
Photo-Boy says...

- Use a tripod whenever possible
- Its digital so take more now and delete later
- Have fun and think about the details of the shot. If you are shooting a monument try getting closer and look at the texture and the details. Ask yourself, if you were there how close would you get and what would you look at?
- Always have a shot list so you don't forget what you are trying to photograph and why.

Make sure to take note of these tips, as they can save your project. It is quite easy to spend vast amounts of time repairing mistakes.



Back just a little
bit further... perfect!



The Pano Twins shoot the Grand Canyon

Story Board - A Start

_____	_____	_____	_____
_____	_____	_____	_____