QTVR Seminar

Today’s seminar will be broken down into three sections. First, you’ll be introduced to the QTVR technology, seeing it in action. This will be followed by a discussion of the creation process – what tools are needed to create your own QTVR. Finally, you will break out into groups and create your own QTVR images.

I. QTVR Technology Overview

1. QTVR in Action

To paraphrase that much-touted marketing slogan: 
Where do you want to GO today?

Climb Mt. Everest?
http://www.pbs.org/wgbh/nova/everest/zone/topviewvr.html

Explore the Pyramids?
http://www.pbs.org/wgbh/nova/pyramid/explore/khufudeschi.html

Visit ancient Mayan cities?
http://www.classroom.com/mayaquest/mayaquest97/default.htm

Visit foreign lands such as Peru?
http://www.studio360.com/lostcities.htm

Prefer something more distant - how about Mars?
http://www.mars-sites.arc.nasa.gov/

Closer to home - Purdue Campus tour…
http://www.tech.purdue.edu/resources/map/
http://www.midc.purdue.edu/Campus_Tour/

2. So what IS this QTVR thing?

- Definition: Quick Time Virtual Reality (QTVR for short) is a way to provide navigable, user-controllable environments. Think of it as a cross between a still image and video – with the bonus of user navigation.

- Why choose QTVR - why not just use video?
  - smaller file size, (fit more on CD, download faster from Web)
• User controllable (look where/when they want, navigable - link to other spots, movies, etc.)

• Consider this question: based on this limited introduction of what others have created with QTVR, how might you use QTVR in your own class / department?

II. Technical Specifications

1. What it takes to view QTVR media

• Since QTVR is an extension of QuickTime, very little is needed to get your system ready to play it. If you are already using QuickTime 3, you have the necessary components installed. If you have an earlier version of QuickTime, or do not have it installed, you’d need to upgrade to QuickTime 3. You can find the installer at: http://www.apple.com/quicktime/

Wondering what QuickTime is? QuickTime is a cross-platform standard for delivering and accessing content (audio, video, and VR), working on PCs, Macs, and Java platforms. QT is used for 1000’s of CD-ROM games and educational products, along with website and streaming video presentations.

2. What it takes to make a QTVR

resources available on campus, or doing it on your own

• Equipment Needed:

  Camera, digital or 35 mm
  tripod
  Panorama Head for tripod

Software (one of the following):

• Full Featured Panorama maker software:
  • QTVR Authoring Studio Software ($299 educational, $395 regular, Mac only)
  • Live Picture’s Reality Studio ($399 limited time, $499 regular, PC only [Mac planned Q4 98])

• Panorama Only - limited feature-set creator
(akin to Kai’s PhotoSoap vs. Photoshop)

- Live Picture’s PhotoVista ($79, PC & Mac)
- PictureWorks’ Spin Panorama 2.0 ($99, cross platform - Mac & PC)

- Resources Available on Campus:
  - QTVR Authoring Studio available for use at MIDC
  - Pano head and tripod available at MIDC
  - CIS Photo Services (with aid of MIDC) is developing a service for creating panorama files, as well as printing panorama images

III. Just DO it! - Your turn to get out and create!
(Hands-on session)

IV. References

1. Software Sources:

   - Apple’s QuickTime VR Authoring Studio
     available through retailers or at the Education Apple Store (under Software)

   - Live Picture’s Reality Studio
     http://www.livepicture.com/products/studio/content.html

   - Live Picture’s Photo Vista
     http://www.livepicture.com/products/photovista/content.html

   - PictureWorks’ Spin Panorama 2.0
     http://www.pictureworks.com/spinpano/headerindex.html

2. Hardware Sources:

   - Kaidan - Pano heads & object turntables
     http://www.kaidan.com/
• Peace River Studios – Panoheads, gyroscopic stabilizers (!), and examples of panoramic photography
  http://www.peaceriverstudios.com/

3. Learning More

• QuickTime VR Authoring Questions and Answers
  http://www.apple.com/quicktime/authors/vrfaq.html

• Apple’s QuickTime VR Workshops
  http://www.apple.com/quicktime/authors/auth-docs.html#qtvr

4. QTVR Samples & more examples on the Internet

• Apple’s list of Internet users QTVR technology
  A brief list of sites you’ll find using QTVR.

• Smithsonian’s Air & Space Museum
  http://www.airspacemag.com/asm/web/site/qtvr/menu.html

• NOVA - Everest Summit
  http://www.pbs.org/wgbh/nova/everest/zone/topviewvr.html
  Nova has used QTVR to bring the tallest mountain in the world to you. A good integration of the VR with other media / information.

• Wrinkle 2 - A global Moment in Time
  http://www.wrinkle2.lava.net/
  over 140 QTVRs taken on March 20/21 around the globe.

• Timetrack
  This is a custom camera with 25-50 lenses (!), but I included it so you could view an innovative use of the VR technology. Samples of commercials you may have seen are at the top; a few QTVRs taken with their custom camera are at the bottom.
  http://www.virtualcamera.com/work.html
  If you are curious about the camera technology, check the main page for Timetrack Camera Systems (you’ll have to login).
  http://www.virtualcamera.com/