

## QuickTime VR Applications for the Classroom

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QuickTime VR is a specialized tool set developed by Apple Computer and implemented for both Macintosh and Windows Operating Systems for producing interactive digital movies. Several companies make software and peripheral devices that can be used to assist in the production of a QuickTime VR movie. A QuickTime VR movie gives the user realtime control over the view of a scene or object. For educational purposes, this technology can stimulate interest and focus a students attention since it is a student becomes actively engaged in viewing a scene or object.

### Types of QuickTime VR:



**Panorama** - In creating a [panorama](#), the camera turns through 360° and a precise number of pictures are captured every 10, 20 or 30 degrees. Using specialized software (VR ToolWorx and QuickTime), the images are stitched together to create the illusion of moving in the scene.



**Object Movie** - To create an [object movie](#), hold the camera stationary on a tripod and spin the object through 360°, shooting a picture every 10, 20 or 30 degrees. Again, specialized software (VR ToolWorx and QuickTime), is used

to create the illusion of a spinning object.

## **QuickTime VR Production Tools:**



**QuickTime** - To view and use QuickTime VR certain files need to be present on your computer system. Apple Provides QuickTime VR Player software for both Macintosh and Windows computers free of charge. You probably already have this software on your system but if you don't or you want to get the latest version of QuickTime for your operating system visit <http://www.apple.com/quicktime/>.



**Digital Camera or Scanner** - A digital camera is a quick and direct way to get the images needed to create a QuickTime VR Movie. If a regular 35mm or other type of camera is used, then after the film is developed, the photographic images would need to be scanned

before they could be used in a QuickTime VR project.



**Kaidan KiWi™ Panohead** - A Kaidan KiWi™ Panohead is one way to give students experience with a professional level tool. The Panohead has two leveling bubbles for the X-axis and Y-axis. The base of the head is marked in degrees. Student get hands-on experience and a chance to apply some of their knowledge of geometry in a real life situation. Sample question: If you want your panorama to have 12 shots, how many degrees should you move the panohead after each shot?

This panohead also includes several components that look like a large washers with bumps. These interchangeable components are called detents and are used to make the head stop-click at the appropriate number of degrees.

The adjustable bracket allows the user to mount a digital camera and make adjustments to that the focal point of the lens is directly over the pivot.

Some ideas for Panoramas:

- School tours
- Field trips - virtual museum (see: <http://www.hearstcastle.com>)
- Class photos
- Any single shot photo



**Kaidan PiXi™ Manual Turntable** - The Kaidan PiXi™ Manual Turntable is the ideal way for students to photographically capture artwork, models, science lab devices, sculptures, specimens and other objects in a 3-D form. With an object turntable, students can quickly and easily create stunning VR object movies for inclusion in electronic documents, multimedia presentations, e-mail messages or web pages.

Degree markings on the edge of the turntable help students get an accurate rotation of the object so that the proper animation occurs in

the final product. A small tripod can be useful in holding the digital camera steady.

Some ideas for object movies:

- Specimens collected on a field trip
- Geometric solids
- Art projects - sculptures, ceramics, etc.
- Science lab apparatus - microscope, scales, etc.
- Anatomical models - see human heart at <http://www.venturaes.com/coolstuff/heart/>



The [VR Worx](#) offers the entire suite of tools, the perfect solution for teachers who require all that QuickTime VR has to offer.

Components:

**Panoramas** - Point of view changes through 360°.

**Object Movies** - Object rotates through 360°.

**Multinode Scenes** - Panoramas with hot spots linking to other panoramas or object movies.