

Sound control

VERSION MAX 2.0/Code Warrior
 COVERS 3D VRML, interactive virtual sound environment
 WRITER Mike Salmond

In a follow on to his last VRML tutorial, Mike Salmond explains how to create a 3D interactive virtual sound environment with web-based objects that can be manipulated in real time

In issue 4 (August) of KTXWorld, I gave a brief overview of how to create VRML files from 3D Studio MAX, introducing modellers and 3D artists to the idea of interactive 3D spaces that do more than passive movie scenes.

In that tutorial I went over the VRML Helper in MAX and covered proximity sensors (the interactive hot spots or click points that kick off interaction and or animation), embedding sound files (utilising 3D Spatialised sound and .wav's) and also how to alter the code of your VRML or .wrl file (although MAX is neat at creating and exporting VRML .wrl files it doesn't quite do everything it should).

Now, moving on a step, what we will create is a 3D VRML, interactive virtual sound environment. What you'll learn is how to use 3D MAX to create neat web-based objects you can manipulate in real-time and in virtual space. Pretty cool, huh?

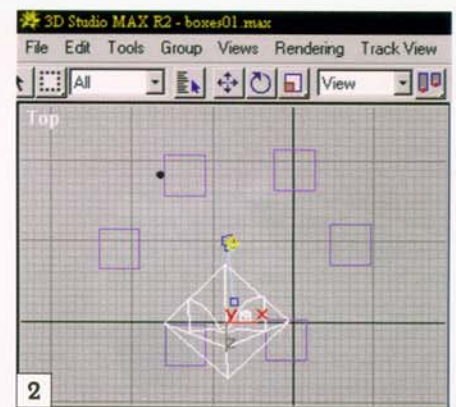
The sound box tutorial is based on a project I did that created a lot of interest from companies because of its seemingly complex nature – and yet it's so simple!

MELODY MAKING

Okay, time to get our virtual hands dirty. You'll need some .wav files – the smaller the better. Loops are best – in my project I used royalty-free looped .wavs, which you can get from music magazines. Edit them down as much as you can without losing too much quality.

You will also need a Web Browser with some form of VRML plug-in installed (eg, CosmoPlayer – download from <http://www.cosmosoftware.com>)

In MAX, create a box, then create some more – six should do it. I arranged them in a circle, with the camera set in the middle – remember the camera is the first-person perspective in VRML. You can put bitmaps on the boxes but I



would advise against it as we're looking to keep load times down to a minimum.

One of the problems with working on the web is never knowing what computer your product is appearing on at the end user stage. Assume a low-spec to take in a wide catchment.

So you've got your boxes (picture 1) and camera – now stick in atmospherics like a light source and maybe a background. Again, if possible, use a colour or mix of colour for the background – bitmaps are dangerous eaters of bandwidth. Backgrounds are an option of the VRML helper and can add a nice effect to your virtual world. Place the Background Icon anywhere, it's placement doesn't effect it's output at all. Stick it at the top (picture 2) so it's out of the way.

Although the boxes will have sound attached to them you have to think, as always, of the end user, and how they will want to experience your environment instinctively. I did some hokey speaker looking models that I grouped to the boxes that helped underline the 'soundness' of the project. I didn't attach sounds to all sides of the boxes – I thought people would want to turn the sounds 'off' and to make their own mixes and suchlike, so the blank box sides acted

