

## Setting an AVI file as background for adding visual effects with 3D-Studio MAX

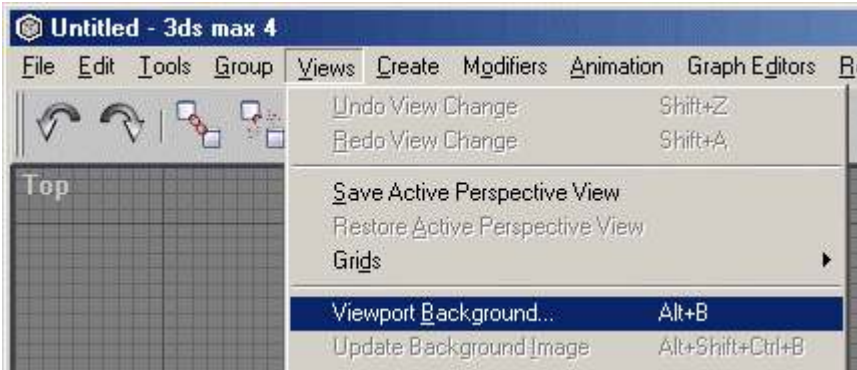
You can easily add video (avi) as your background in 3d Max and still animate on top off it. It's a great way to add some visual effects (such as explosions in this example) or just simple text objects to the video. I will explain how to set an AVI file as background image for the viewports and as environment map, so that it can be rendered.

**You can use almost any avi format video you choose.** For this tutorial I have placed an asteroid avi in your handout

## Setting up 3D-Studio MAX

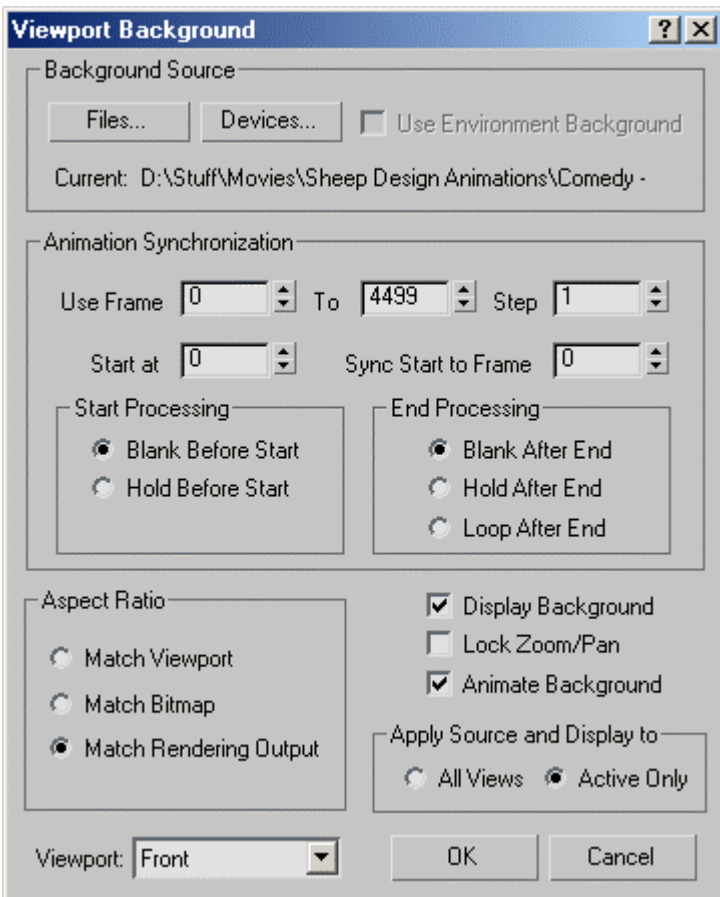
Please click on "File" and then on "Reset" to reset 3D-Studio MAX.

## Setting the AVI file as viewport background



Click on "Views" and then on "Viewport Background..." to open a dialog for further settings.

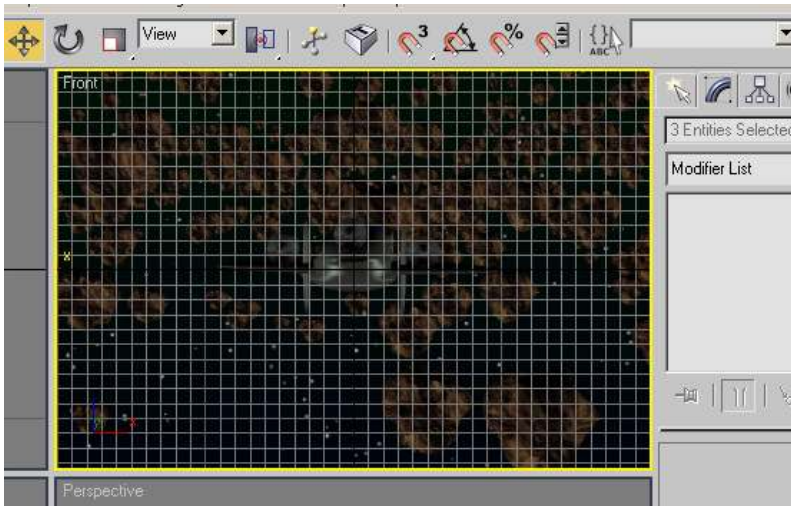
This dialog will appear:



Please make sure, that you enable the checkboxes "Display Background" and "Animate Background". Otherwise the image will not be displayed and not be updated to the active frame when you scroll through the animation. You should also set the aspect ratio to "Match Rendering Output", because we want the video to be displayed the way it will be displayed in rendered mode. This is important thing, if you don't want to put your explosion or other objects in the wrong place.

You are also able to set the viewport, the video will be displayed in. For our purpose, we should select "Front". This is the easiest way to explain it, I think, but you can also add a camera and select it. (I have chosen a camera in the video.)

If you followed my instructions correctly, it should now look (at least similar) to this:



You are watching my toy spaceship. Setting the viewport background serves as a help while attaching explosions, phasers etc., but it is not renderable, so I'm going to explain how to setup the environment map.

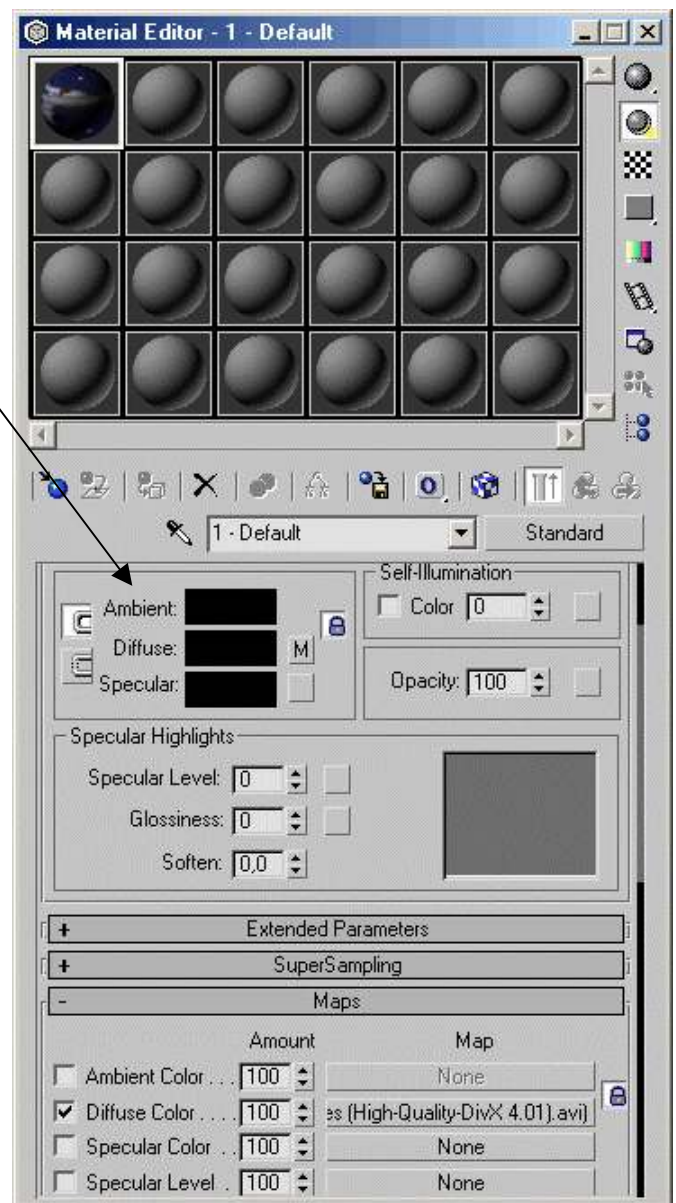
### Applying an environment map

At First, you should start the Material Editor. Select the first material, normally named "1 - Default" and set "Specular Level", "Glossiness" and "Soften" all to "0". You should also set "Ambient", "Diffuse" and "Specular" to black. (R,G,B = 0,0,0).

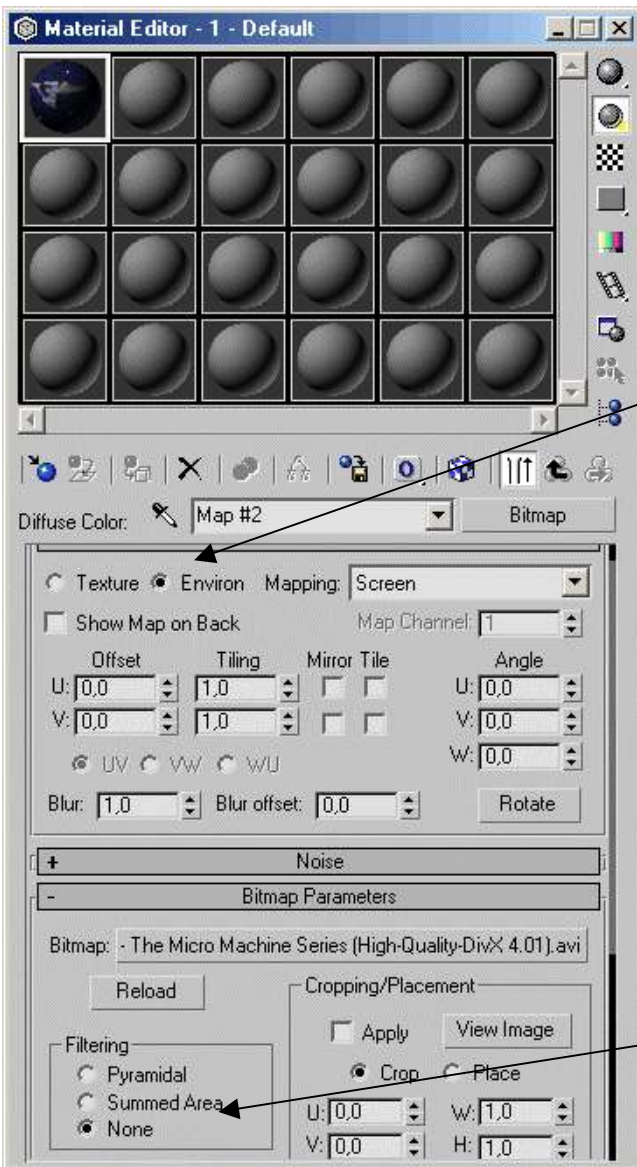
Now go down to the maps tab:

check "Diffuse", click on "none"

Browse from: New and select your video in the "Open file" dialog that pops up.



and it should look like this:

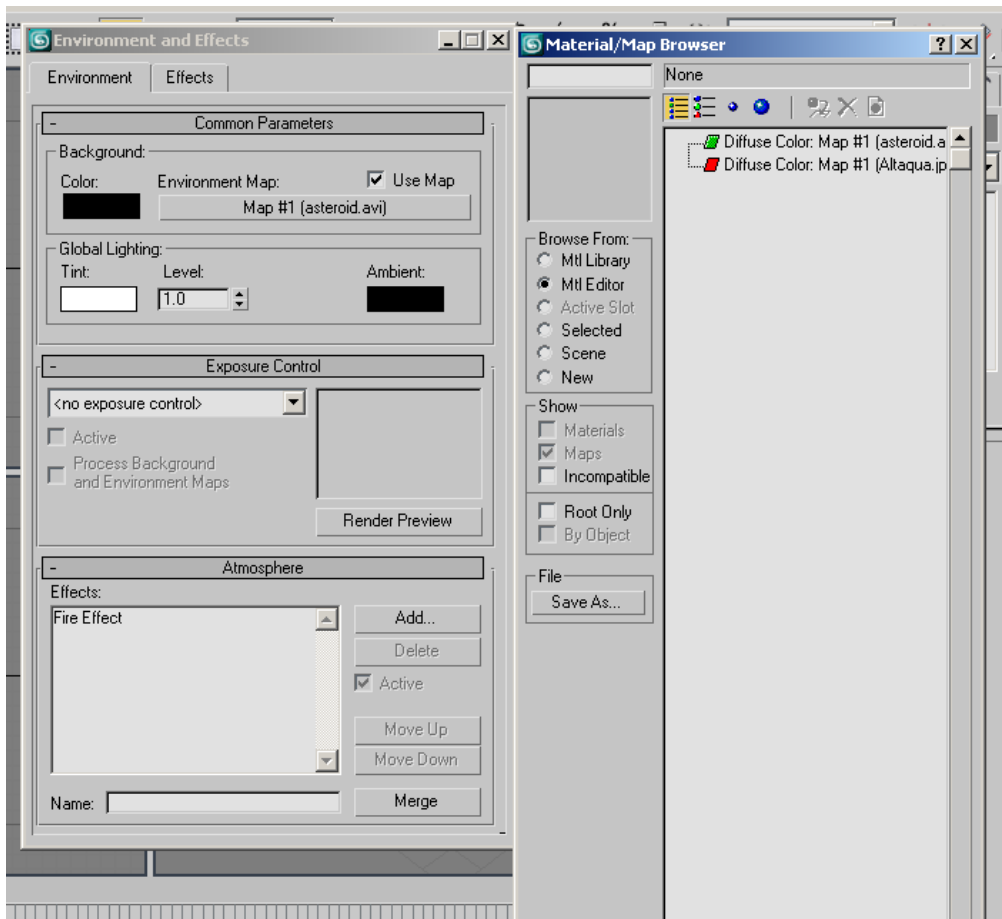


The Bitmap map is to be configured as the following:

Activate the optionbox "Environ" instead of "Texture", which specifies our video to be an environment map with the mapping mode "Screen".

After deactivating the "Tile" checkboxes, please set filtering from "Pyramidal" to "None", unless you want to render the animation in a different resolution than our background video.

Now, that you have successfully constructed an environment map, you may leave the Material Editor. We just have to select our newly created material as THE environment material. And this is done by clicking on "Rendering" and then on "Environment...". This will open the environment settings for our project:



As you see, there's still no environment map set, which suggests selecting our material from the Material Editor. To do this, click on "None" and in the following dialog click on "Mtl Editor". Our material should be listed in the listbox. Select it and click on "OK" to return to the environment dialog. Don't forget to activate the checkbox "Use Map" and that should be it! The AVI file in the background should now also be seen in the rendering.

### Adding objects for "Special Effects"

You may now add objects like polygons, text objects, squares etc. to your scene and they will be rendered in front of our background map. After modeling some phasers, torpedos or whatever, you should be able to create some cool visual effects.