## ΓΡΑΦΙΚΑ & ΕΙΚΟΝΙΚΗ ΠΡΑΓΜΑΤΙΚΟΤΗΤΑ

Διάλεξη #12

3ds MAX – Rendering

Rendering

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( load "choose\_renderer.max" )

#### □ 3ds MAX gives:

- several options to RENDERER and also
- **u** the engine to output images to computer disk

#### RENDERERS options

- Go to "Render Setup"
- Scroll to bottom to "+ Assign Renderer"
  - Assign a renderer for:
    - Production
    - Material Editor (lock with Production renderer choice)
    - ActiveShade

(Main Toolbar)

### Rendering

- Production RENDERERS categories:
  - **Software** Renderers slow & hardware independent
    - "Default Scanline Renderer"
    - "NVIDIA mental ray" (advanced renderer)

(used for textures rendering and photorealism)

- **Hardware** Renderers fast & hardware dependent
  - "NVIDIA iray" (the "hardware" mental ray)
  - "Quicksilver Hardware Renderer" (very fast uses the same engine as Viewport)
- "VUE File Renderer" (not an image renderer)
  (it experts a information text file)
  - (it exports a information text file)

### Rendering

Assign (choose) Production: "Quicksilver Hardware Renderer"

- Go to "Render" tab
  - Enable "Time:" Set Seconds = 1
  - Click "Render" button (bottom right)
    - this "render" loses some photorealistic features:
      - "light exclusion" and "area shadows" don't work

(make a clone for this render production to compare the corresponding one with "Default Scanline Renderer")

(Also perform Rendering changing Visual Style & Appearance – Rendering Level options)

#### Go to "Common" tab – Production: "Default Scanline Renderer"

Click "Render" button (bottom - right)

(the rendering took longer but "light exclusion" is working and also "area shadows")

(observe the soft shadows and the floor area)

### Render to image sequence (movie)

( load "image\_sequences.max" )

#### □ We **render to a sequence** of still images in order **to make a movie**

- Before you render SAVE the "xxx.max" file just in case ...
- Go to "Render Setup" Common tab Common Parameters
  - –Time Output Enable "Range:" 0-90 frames
  - **Output Size** 640x360
  - -Render Output click <u>Files...</u> (browsing to the "render output" folder by default)
    - Create a New Folder name it "flying\_logo\_sequence"
    - Go into folder "flying\_logo\_sequence" and
      - Give a file name for sequence images "flying\_logo\_"
      - Give a format type "Save as type:" PNG Image File (\*.png)
    - Click "Save" from the information window browsing choose "RGB 24 bit (16.7 Million)"
- Before you render SAVE the "xxx.max" file with all the parameters just in case...
  - Click "Render" button (bottom right)
    - this "render" takes a few seconds because is a very simple scene

### RAM player (images sequence to movie)

( load "image\_sequences.max" )

- □ We can preview the animation with the "<u>**RAM player</u>**" module of 3ds max</u>
  - Be sure that you don't have high resolution because it will be necessary to increase the system's RAM
- Go to "Rendering" menu Compare Media in RAM Player...
  - –RAM Player window appears
    - Click on "Open"
    - Go into folder "flying\_logo\_sequence" and
      - Click on the first image file "flying\_logo\_0000.png"
      - Click "Open"
      - "Image File List Control" window appears Click "OK"
      - "<u>RAM Player Configuration</u>" window appears Click "OK"
  - All the images file are uploaded to RAM (memory)
  - Click "PLAY" button to play the sequence of images

(Control the frame rate to analyze the animation)

Click "SAVE" button to save the sequence as movie format (<u>xxx.avi</u>)

# Ερωτήσεις

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