02561 COMPUTER GRAPHICS IMM . DTU

Exercise 02561-05	**Texture Mapping - and more..**
Readings	Angel: chap. 8.7-8, Primer chap.8
Purpose	The purpose of the exercise is to understand the principles of 2D Texture Mapping and how it can be used for polygon meshes. Furthermore, the purpose of the exercise is to understand the process of Hidden Surface Removal and Clipping.
Part 1	Run the program 02561-05-01-2009.cpp. Turn the hidden surface removal algorithm on/off and observe the results.
Part 2	Change the viewing frustum (angle, far, near) so that parts of the object are clipped away. Introduce an extra clipping plane, defined by the equation of the plane and use it for clipping the object. Get inspiration from 02561-05-02-2009.cpp
Part 3	Run example 02561-05-03-2009.cpp. Make experiments with the filtering and environment attributes: Explain the principles of the different filter techniques used in OpenGL. Explain the principles of the different texture mapping environment attributes: Modulate, Decal and Replace used in OpenGL.
Part 4	Map the checkerboard onto a polygon defined by the vertices. (0,0,0), (10.,0.,0.), (10.,6.,0), (5.,10.,0.), and (0.,6.,0). Do experiments with wrapping and repeating the texture.
Part 5	Transform the texture by transformations functions.
Part 6	Map your own picture onto the polygon defined above (optional).
Part 7	Finish exercise 02561-04-2009