



ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΙΓΑΙΟΥ

Studio IV-Concept Design

Ενότητα 9: Εργαστηριακές ασκήσεις

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Ευρωπαϊκή Ένωση
Ευρωπαϊκό Κοινωνικό Ταμείο



ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ & ΘΡΗΣΚΕΥΜΑΤΩΝ, ΠΟΛΙΤΙΣΜΟΥ & ΑΘΛΗΤΙΣΜΟΥ
ΕΙΔΙΚΗ ΥΠΗΡΕΣΙΑ ΔΙΑΧΕΙΡΙΣΗΣ

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



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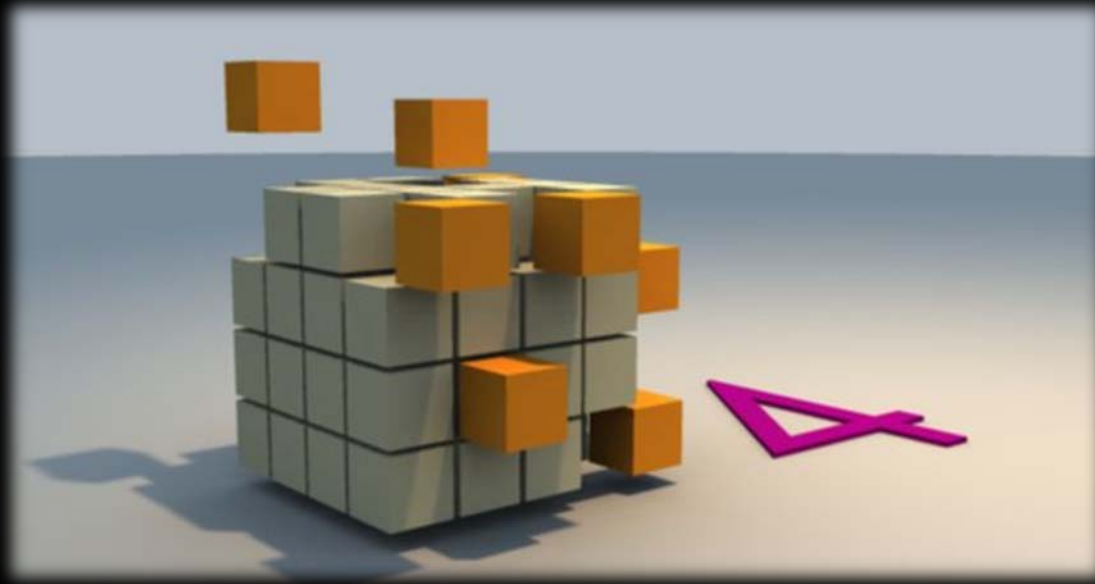
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Navigating in 3D Views

Introduction to 3D modeling with Softimage

Basic Interactions with Softimage

In 3D views, a set of navigation controls and shortcut keys lets you change the way in which you view your scene. You can use these controls and keys to zoom in to and out of a scene, frame objects within a viewport, and orbit, track, and dolly the scene among other things.

Activating Navigation Tool

- Most navigation tools have a corresponding shortcut key so you can quickly activate them from the keyboard. However, some tools are only available from a viewport's camera icon menu. In either case, activating a navigation tool makes it the current tool for all 3D views, including object views which do not have an equivalent to the camera icon menu.

Selecting navigation tools from the camera icon menu activates them for all 3D views.





Using Memo Cams


- Each viewport and object view has four “memo cams” (memory cameras), each of which can store the view’s current perspective or orthogonal view settings for quick access.
- - Middle-click a memo cam box to store the current view settings. If the memo cam already has defined view settings, the new settings are not saved. Ctrl+middle-click to overwrite the current view settings.
 - Left-click a memo cam box to switch to its stored view settings.
 - Right-click a memo cam box to clear its settings.



Framing Objects in 3D Views

- Framing commands let you instantly zoom in to or out from selected objects in 3D geometry views. You can frame objects in two ways: framing selected objects or framing all objects in one or all 3D views.
- *To frame selected objects in a 3D view*
- Do one of the following:
 - Position the mouse pointer over a 3D view and press f.
 - Choose Frame Selection from the camera icon menu. 
- *To frame selected objects in a 3D view*
- Do one of the following:
 - Press Shift+f.
 - From the main menu, choose View > Frame Selection (All 3D Views).
- *To frame all visible objects in a 3D views*
- Do one of the following:
 - Position the mouse pointer over a 3D view and press a.
 - Choose Frame All from the camera icon menu. 
- *To frame all visible objects in all 3D views*
- Do one of the following:
 - Press Shift+a.
 - From the main menu, choose View > Frame All (All 3D Views).

Zooming

- You can zoom into and out of your scene or pan in all 3D views using the zoom controls.
- **Zooming and Panning**
- *To pan and zoom*, choose **Pan & Zoom Tool** from any viewport's camera icon  menu, or press the z supra key to activate the zoom tool. Then, in any 3D view, do any of the following:
 - Click the left mouse button and drag to pan.
 - Click and hold the middle mouse button to zoom in.
 - Click and hold the right mouse button to zoom out.
 - Press Esc to deactivate zoom mode.
- By default, Softimage zooms into or out from the center of the view.
- You can also zoom into or out from wherever the mouse pointer is located by activating the Zoom on Cursor feature: choose File > Preferences from the main menu to open the Preferences window, click the Tools > Camera icon in the explorer pane to open the Camera property editor, and activate the Pan/Zoom > Zoom On Cursor option.

Pan & Zoom

- **Panning and Zooming**
- There is an alternative tool that allows you to zoom in or out by dragging the mouse right or left. Some users may prefer this style of interaction.
- *To zoom and pan*
 - From the camera icon menu, choose Zoom Tool.Do any of the following:
 - Left-click+drag to the right to zoom in.
 - Left-click+drag to the left to zoom out.
 - Middle-click+drag to pan in the corresponding direction.
- **Zooming with the Mouse Wheel**
 - By default, you can zoom using the mouse wheel. Scroll forward to zoom in and backward to zoom out. Press Ctrl to zoom quickly, Shift to zoom slowly, and Ctrl+Shift to zoom even more slowly.
 - However, you cannot use the mouse wheel in other tools, for example, to set the radius for the brush or proportional modification; instead, press r and drag the mouse to modify the radius.
 - If desired, you can disable the mouse wheel zoom or restrict it to the Navigation tool so that you can use the mouse wheel with other tools.
- **Rectangular Zooming**
- Rectangular zooming lets you define a rectangular area that becomes the new magnification factor.
- *To zoom in an area*
 - Choose Rectangular Zoom Tool from the camera icon menu or press Shift+z to activate the rectangular zoom tool. Then do either of the following:
 - Left-click+drag an area in the view to zoom in to that area.
 - Right-click to zoom out, and then drag diagonally to define the rectangle.

Orbiting

- Orbiting rotates a camera, spotlight, or user viewpoint around its point of interest. This lets you study your scene’s overall “look” in any angle in any view. Orbiting is sometimes called tumbling or arc rotation.
- **Orbiting is only possible in the non-orthographic views (camera, user, and so on).**
- ***To orbit***
 - Choose Orbit Tool from any viewport’s camera icon menu, or press the o supra key while in User view.
 - When you orbit, the left mouse button allows free rotation, the middle mouse button allows vertical rotation, and the right mouse button allows horizontal rotation.
- ***To set orbiting speed***
 1. From the main menu, choose File > Preferences to open the Preferences window. Then click the Tools > Camera icon in the explorer pane to open the Camera property editor.
 2. From the Nav options, set the Orbit Speed parameter to adjust the orbiting speed. Higher values cause the camera to orbit faster.
- **Orbiting Around Selections**
- You can set the orbit tool to orbit around selected objects or components, rather than around the normal camera interest.
 1. From the main menu, choose File > Preferences to open the Preferences window. Then click the Tools > Camera item in the explorer pane to open the Camera property editor.
 2. From the Nav section, set the Orbit Around Selection option to one of the following:
 - Off — the orbit tool will always orbit around the camera’s point of interest.
 - On — if you are in object selection mode, the orbit tool orbits the camera around the selected object, rather than the normal camera interest. If you are in component selection mode, using the orbit tool orbits the camera about the selected components.
 - Components Only — if you are in object selection mode, the orbit tool orbits the camera around the normal camera interest. If you are in component selection mode, using the orbit tool orbits the camera about the selected components.

Dollying and Rolling

- You can dolly toward the camera interest in a perspective view or toward the center of the 3D view in an orthogonal view. Rolling is only possible in the perspective views.
- *To dolly*
 - Choose Dolly Tool from any viewport's camera icon menu or press the p supra key. Then, in any 3D view, do any of the following:
 - Press the left mouse button and drag to track normally.
 - Press the middle button and drag to track slowly.
 - Press the right button and drag to track quickly.
- *To roll the camera about its Z axis*
 - Choose Roll Tool from any viewport's camera icon menu or press the l (L) supra key. Then, in any 3D view, do any of the following:
 - Press the left mouse button and drag to roll normally.
 - Press the middle button and drag to roll slowly.
 - Press the right button and drag to roll quickly.

Resetting Cameras

- You can reset the camera and other 3D views so that their global point of origin ($X = 0$, $Y = 0$, $Z = 0$) is in the center of the 3D view.
- *To reset the camera and view coordinates*
 - Choose Reset from the camera icon menu or press (r).