

# User Manual 3. APPEARANCE





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## Chapter 3: Appearance



The 3rd Module is called "REVEAL" and includes the following 4 groups of commands:

- ✓ Exploration Zoom
- $\checkmark$  Visualization
- √ Views
- √ Dynamic Section



#### 1.1 Zoom

The "Explore - Zoom" group of commands includes the commands that allow the user to zoom in and out of objects on the desktop for a better visualization. Zooming is done:

- With window
- Within the limits of the project
- Previous
- With +
- With step -

#### 1.2 Shift



Command that allows the user to move the entire drawing within the desktop.

#### **1.3 Dynamic Rotation**





The "Visualization" command group contains important commands for the presentation of the vector.

#### 2.1 Redesign



#### 2.2 2D-3D



Command switch from a 2D view of the study to a 3D view and vice versa.

A precondition for the 3D visualization is that the mathematical model of the study has been calculated beforehand, through the "Calculation" command in the "Tools" section.



In 3D visualization the user has the option to choose the model he wants to display on the desktop between the mathematical, physical or both at the same time. The choice is made from the "status bar" (see §INSERT) or the command "Mathematical" (see below)



#### 2.3 Photorealism

Φωτορεαλισμός Command to create a photorealistic representation of the vector.

▲ A precondition for the photorealistic visualization is that the mathematical model of the study has been calculated beforehand, via the Calculation command in the Tools section.

During the photorealistic visualization the vector elements are colored according to the colors of the corresponding layers.



#### **OBSERVATION:**

In photorealism it is now possible to select the elements (beams - columns) and display their properties.

Hovering the mouse pointer over a physical element (a pillar or beam) in the photorealism, the element turns red



Left-clicking on this element selects it and displays its identity on the left of the tree and its properties on the right.

Pressing the right button displays the following menu







where you can choose whether you want to display the properties of the cross-section or properties the cross-section.

#### 2.4 Mathematical



The sequential selection of these three options alternates the representation of the model, moving from mathematical to physical and from physical to both mathematical and physical.



**A** prerequisite for the mathematical representation is that the mathematical model of the study has been previously calculated and the vector is in a three-dimensional representation.



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 Alternatively, press the button on the horizontal bar at the bottom of the desktop to switch the model display sequentially.
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#### 2.5 Switches

- 🔽 Γραμμή Στοιχείων
- 🔽 Auto Trim

🔽 Γέμισμα Διατομών

- 📃 Σταθερά Σημεία
- 📝 Άξονες δοκών
- 📝 Γενικοί Αξονες
- 🔲 Τοπικοί Αξονες
- 📃 Ελευθερίες Μελών
- 📝 Εμφάνιση Βοηθητικού Αρχείου
- 🔲 Μοντέλο Πλακών
- 🔽 Κενά Πλακών
- 📃 Εμφάνιση επιλεγμένων στοιχείων στο δέντρο



Switches are tools that can be activated or deactivated as appropriate. In particular:

Εμφάνιση Κόμβων Data Line active	display of line data in the line work surface.
"Auto Trim" active □ ▲ Disable every each time that you want to insert a footing under the basement walls.	during the insertion of a beam, where it meets intermediate columns it is cut into individual beams.
"Fill Cross-section" active	Appearance of structuralelementsinthe environmentworkingwithcolorantscross sections
"Fixed Points" active	display of the insertion points of the pillars and the insertion axis of the beams
"Beam shafts" active	appearance of the three axes of the beam, the two peripheral and the paracentral
"General axes" active	display on the screen of the general axes.
"Local axes" active	display of local axes on the screen of the data.
"Members' Freedoms" active	the degrees of freedom of ONLY the members that have been touched are shown graphically, with symbols: TETRAGONAKI for movements (N, Vy, Vz) CIRCLE for turns (Mx, My, Mz) -without colour, for freedom -in colour, for binding
"Emfan. File helper" 🗆	display on the assistant's screen. File (.dwg, .dxf)

"Plate model" active	display on the screen of the mathematical model of the plates and the other TABs beyond the Plaques.
"Plate gaps" active	display on the screen of gaps for plates Zoel type.
"Emf. Epil. Item in tree" 🗆	Display in the tree the number selected items per category.
"Show nodes" : active	display of all nodes of the mathematical model
Dormant 🗆	hiding all nodes of the mathematical model

M 🔀

There are two symbols, a square and a circle with three individual segments each representing the two triads of intensities (forces, moments). The three segments are coloured red, green and blue respectively. Each colour represents the corresponding intensive quantity. The green representing the y-axis is Vy and My and the blue is Vz and Mz.

1 Local axes are represented by the corresponding colour: Green : y-axis,

Red: x-axis, Blue: z-axis.





Each of the *Face* buttons displays the corresponding face of the vector on the screen.

1. The precondition, again, is that the mathematical model of the study has been calculated beforehand.

#### 4. Dynamic Section



During the photorealistic display recolupion the activation "ON of the Dynamic Section displays a cutting plane on the screen.



Move and rotate the plane with the help of the arrow or select the predefined XY, XZ, YZ intersection planes.

