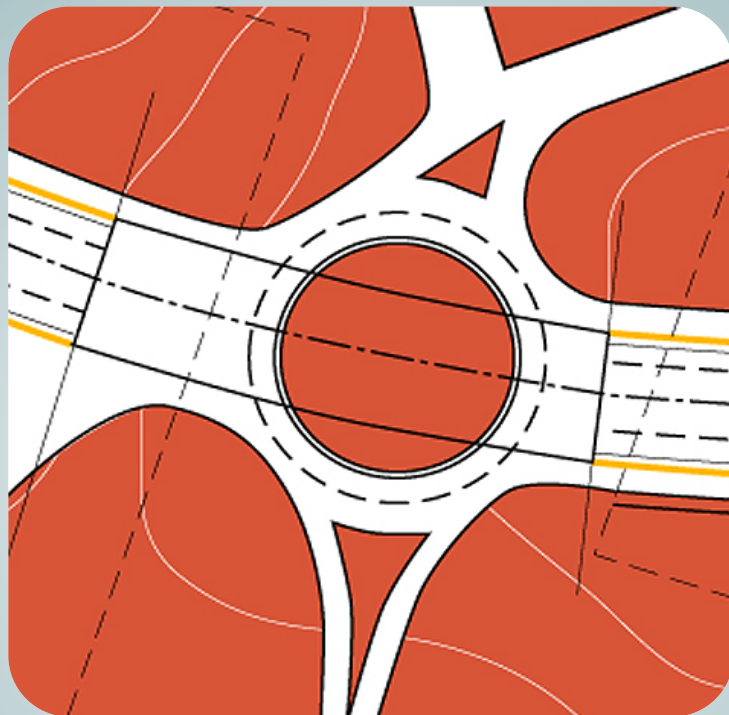


Workshop on Projects

Week 11. Comments For Videos (Planos Planta)



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PLANOS PLANTA VIDEO 1

1. Create a new layer, named HOJAS. Set it as the actual layer.
2. Create a rectangle of 800x500 units. GENERALLY, IN C3D DRAWINGS, CAD UNITS REPRESENT METERS. This rectangle will represent the frame of a sheet.
3. Create a tiling of the corridor with this frame:
 - a. Note that occasionally this frame needs to be rotated.
 - b. Note also that this tiling has tiles sized 800x500 meters. This size only applies when the designer wants to make the project's layouts at a scale of 1/1000 and is using the meter as unit of representation.
4. When the user switches to PAPER SPACE, a single object VIEW appears automatically, showing inside the MODEL SPACE (this occurs "by default" with AutoCAD). The user removes this view so that the PAPER SPACE is completely empty. Then:
 - a. The user selects a size for the sheet (ISO A1). Additionally, the user gives a particular name for this new PAPER SPACE sheet.
 - b. The user creates a new PAPER SPACE VIEWPORT of 800x500 millimeters. Remember that in paper space everything is expressed in millimeters.
5. The user will no longer need the rectangle used as a pattern for making the tiling in MODEL SPACE, so this element is removed from the drawing.
6. The user starts to play with the ZOOM +/- IN MODEL SPACE.

REMARK: IT IS ABSOLUTELY NECESSARY TO DISTINGUISH AND CONTROL THE USE OF BOTH ENVIRONMENTS, PAPER SPACE AND MODEL SPACE, INSIDE OF A VIEWPORT OF PAPER SPACE.

7. The user leaves this first layout in PAPER SPACE and starts a new one.
NOTE THAT IN THIS FIRST LAYOUT THE SCALE HAS NOT BEEN DEFINED.
This important issue will be discussed below.
8. In the second layout, the user runs the command VIEWPORT, with the same dimensions, the same size for the sheet of paper (actually, he/she selects a size A0 instead of an A1 by error; this is the reason why the viewport looks quite a lot smaller than the sheet in the video).
NOTE that the user has carried out all these steps in PAPER SPACE.
9. The user switches to MODEL SPACE (THIS IS IMPORTANT; FORGETTING TO DO THIS IS A COMMON MISTAKE MADE BY STUDENTS) to start to work in the model from the inside of the VIEWPORT. At this moment he/she sets a ZOOM SCALE OF 1XP. That means that 1 unit of CAD in Model Space is represented by 1 unit of CAD in PAPER SPACE. This equivalence is set because the user has previously decided that the scale for this sheet was 1/1000 and, besides, because the SPACE is representing meters. Thus:
1 UNIT OF CAD IN MODEL SPACE (1 METER) = 1/1000 METERS IN PAPER SPACE.
***As in PAPER SPACE, UNITS MUST BE ALWAYS EXPRESSED IN MILLIMETERS:
1 unit of CAD in model space (1 meter) = (1/1000) · 1000 MILLIMETERS = 1 unit in PAPER SPACE.***
10. According to this simple discussion, it is clear that if the user had selected a ZOOM 2XP, the VIEWPORT would have shown the model in meters at a scale of 1/500 ; a zoom 0.5XP would have shown it in meters at a scale of 1/2000, and so on.
11. Finally, the initial rectangle drawn in model space measuring 800x500 square meters and the viewport created in PAPERSPACE measuring 800x500 square millimeters fit perfectly. The user checks this and hides the layer named HOJAS.

PLANOS PLANTA VIDEO 2

1. (The user realizes that there is a mistake in the size of the sheet of the previous video, so that he edits it and then works with the sheet whose frame is inclined).
2. He/she inserts a new layout, sets it to a suitable size and draws a new VIEWPORT in PAPERSPACE. Sheets 2, 3 and 4 are solved using the same procedure shown above. The user now presents in the viewport 5 the model space rotated through an angle suitable to present this part of the corridor properly on the sheet.
3. (In C3D 2005 you don't need to switch the menu: the command rotate is already available from your user interface by default. Jump this part of the video).
4. The command UCS (User Coordinate System) creates a local coordinate system under many different conditions. In this case, the user has decided to rotate the WCS (World Coordinate System) -45° from OZ.
5. The user sets the view in MODEL SPACE according to this new UCS, which rotates the model space but, as the viewport was created with the WCS, nothing seems to be updated in PAPER SPACE. Finally he/she decides to remove the viewport and create it again. Then he/she succeeds:
 - a. REMARK: FOR A VIEWPORT, THE VALUE FOR ITS ZOOM XP IS A PROPERTY. Thus, if you LIST a VIEWPORT (run the command LIST from PAPER SPACE) you can check if your layouts are at the right scale).

PLANOS PLANTA VIDEO 3

PLANOS PLANTA VIDEO 4

You are not expected to encounter any problems with this part of the learning material. Ask the lecturer for help if you do.