

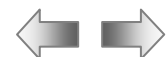
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL

FORMAÇÃO DE PESSOAL DAS ÁREAS FUNCIONAIS  
APOIO TÉCNICO A ACTIVIDADES DE C & T

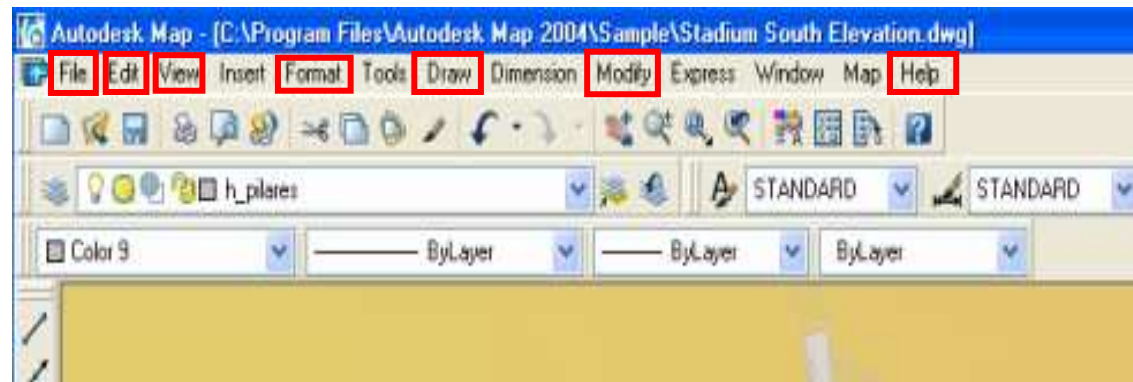


**Ambiente  
de Trabalho  
em AutoCAD**

DESENHO TÉCNICO MODERNO, APOIADO  
PELAS TECNOLOGIAS DE INFORMAÇÃO



## Pop Menus



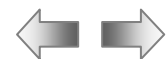
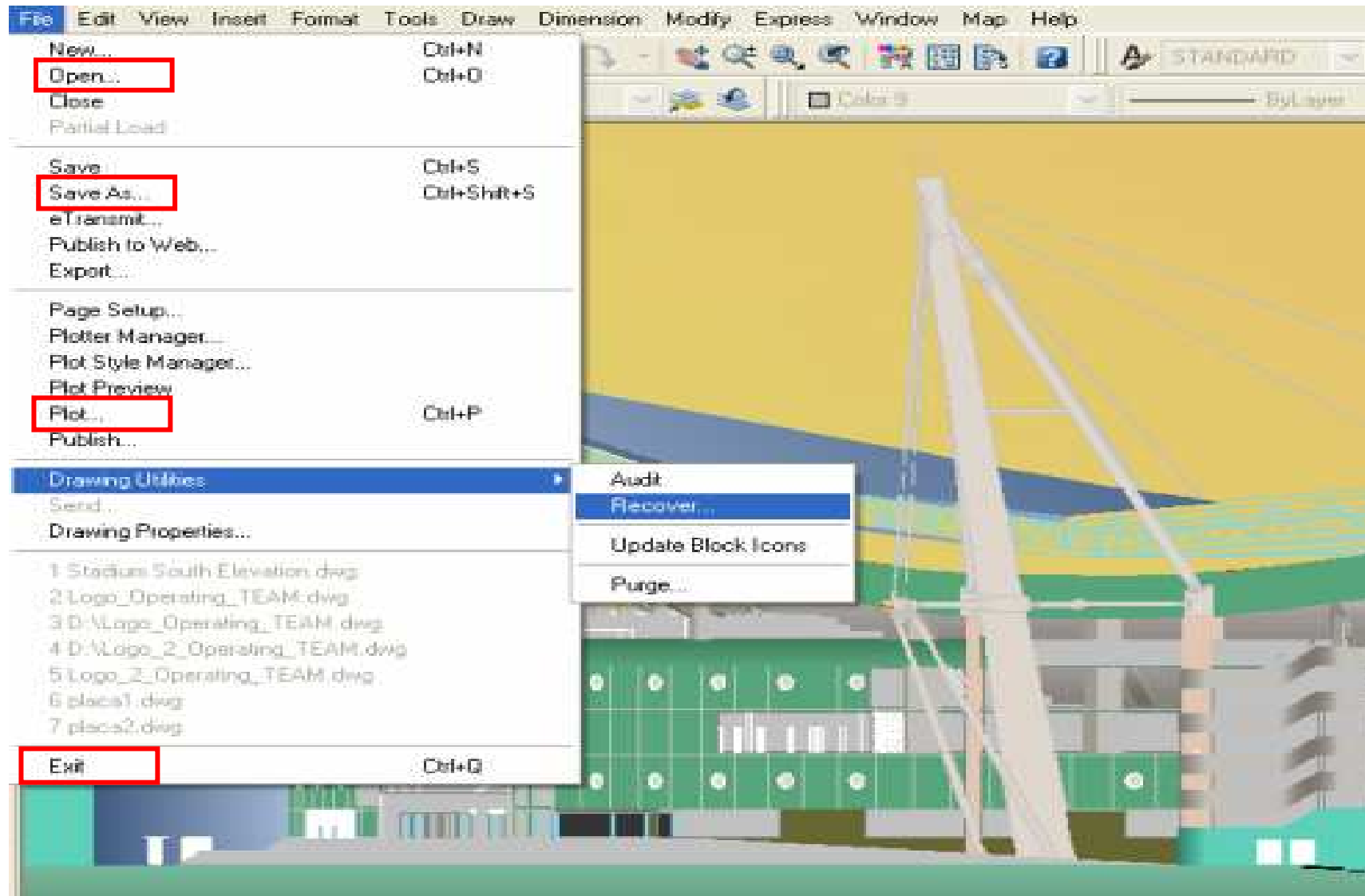
dwg  
dxf  
dwf

Alguns ficheiros tipo com  
que o AutoCAD trabalha

gif  
jpg  
tif



# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL

The screenshot shows the AutoCAD LT 2004 Help window. The title bar reads "AutoCAD LT 2004 Help". The menu bar includes File, Edit, View, Insert, Format, Tools, Draw, Dimension, Modify, Window, and Help. The toolbar shows various drawing and editing tools. The main content area is titled "CIRCLE Command" and is divided into three tabs: Concepts, Procedures, and Reference. The "Concepts" tab is active, displaying the following text:

**Creates a circle**

You can create a circle by beginning with the center point or one of three points on the circumference, or you can select objects to which the circle is tangent.

**Note** To draw an isometric circle, use the Isocircle option of the **ELLIPSE** command. The Isocircle option is available for ELLIPSE only when the Style option of Snap mode is set to Isometric (see **DSETTINGS**).

**Draw toolbar:**

**Draw menu:** Circle

**Command line:** circle

Specify **center point** for circle or **3P (Three Points)/2P (Two Points)/Tr (tan tan radius)**: *Specify a point or enter an option*

**Center Point**

Draws a circle based on a center point and a diameter or a radius:

Specify radius of circle or [Diameter]: *Specify a point, enter a value, enter d, or press ENTER*

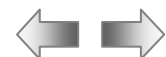
**Radius**

Defines the radius of the circle. Enter a value, or specify a point (2). The distance between this point and the center point determines the radius of the circle.

**Diameter**

Draws a circle using the center point and a specified distance for the diameter:

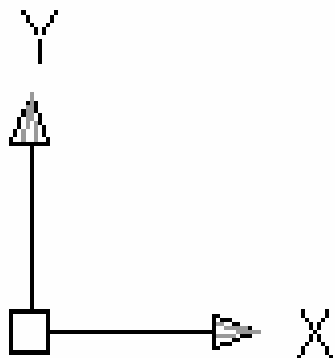
Specify diameter of circle <current>: *Specify a point (2), enter a value, or press ENTER*



# Teclas de Funções

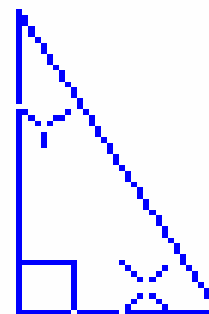
<b>Esc</b>	Cancela comando corrente	<b>F6</b>	Coordenadas ON / OFF
<b>F1</b>	Help	<b>F7</b>	Grid ON / OFF
<b>F2</b>	Ecran Gráfico / Ecran Texto	<b>F8</b>	Ortogonais ON / OFF
<b>F3</b>	Object Snap ON	<b>F9</b>	Snap ON / OFF
<b>F4</b>	Tablet ON / OFF	<b>F10</b>	Coordenadas ON / OFF
<b>F5</b>	SNAP <S><i> Isometria (planos T L R)	<b>F11</b>	Object Snap OFF





**MODELO**

Ambiente do modelo  
todo o desenvolvimento



**PAPEL**

Ambiente de papel  
apenas para PLOTS

**tilemode**

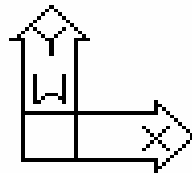
**1**

**0**

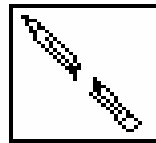
**ucsicon**

**on / off**

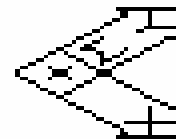
## ICONS - Ambientes de Trabalho



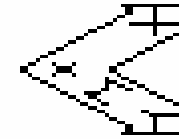
2D UCS at  
WCS



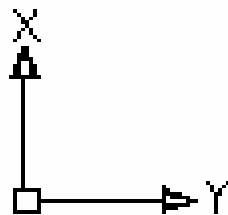
right side view  
of 2D UCS



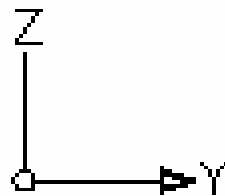
iso view of  
2D UCS



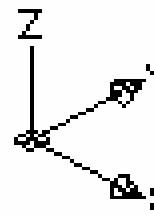
2D UCS viewed  
from below



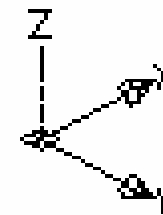
3D UCS at  
WCS



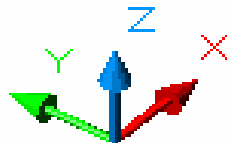
right side view  
of 3D UCS



iso view of  
3D UCS

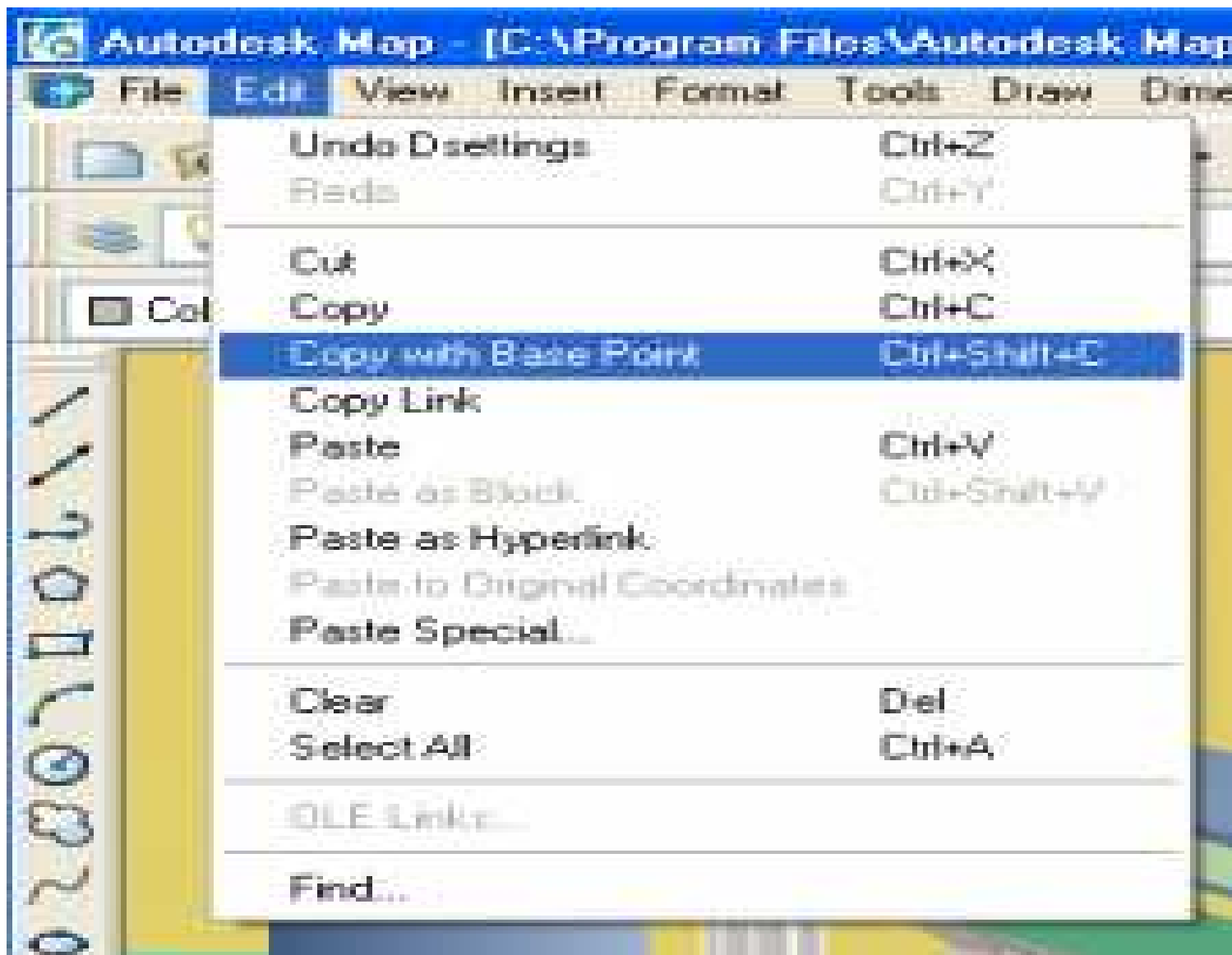


3D UCS viewed  
from below

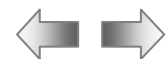
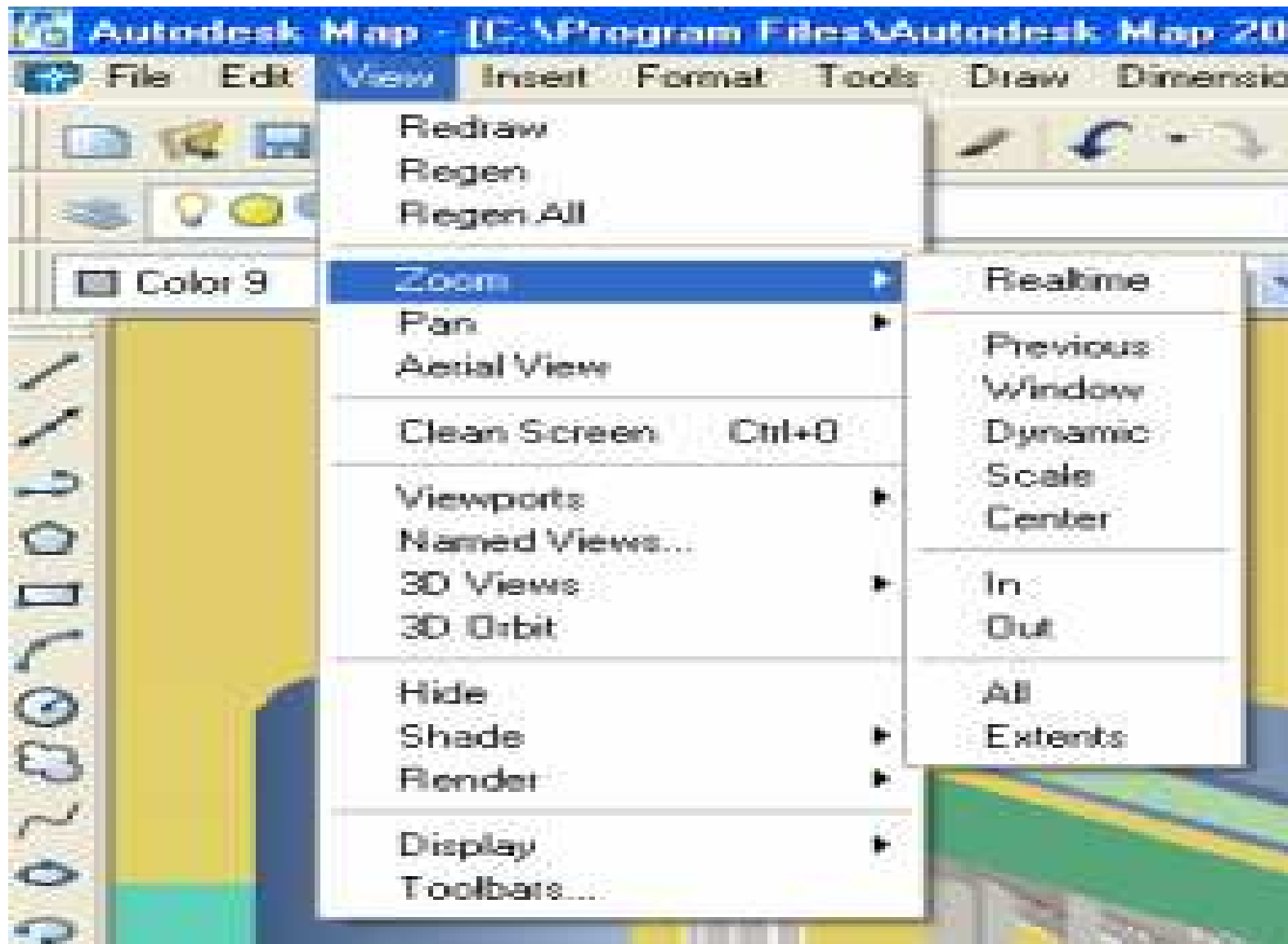


**shadmode**

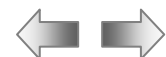
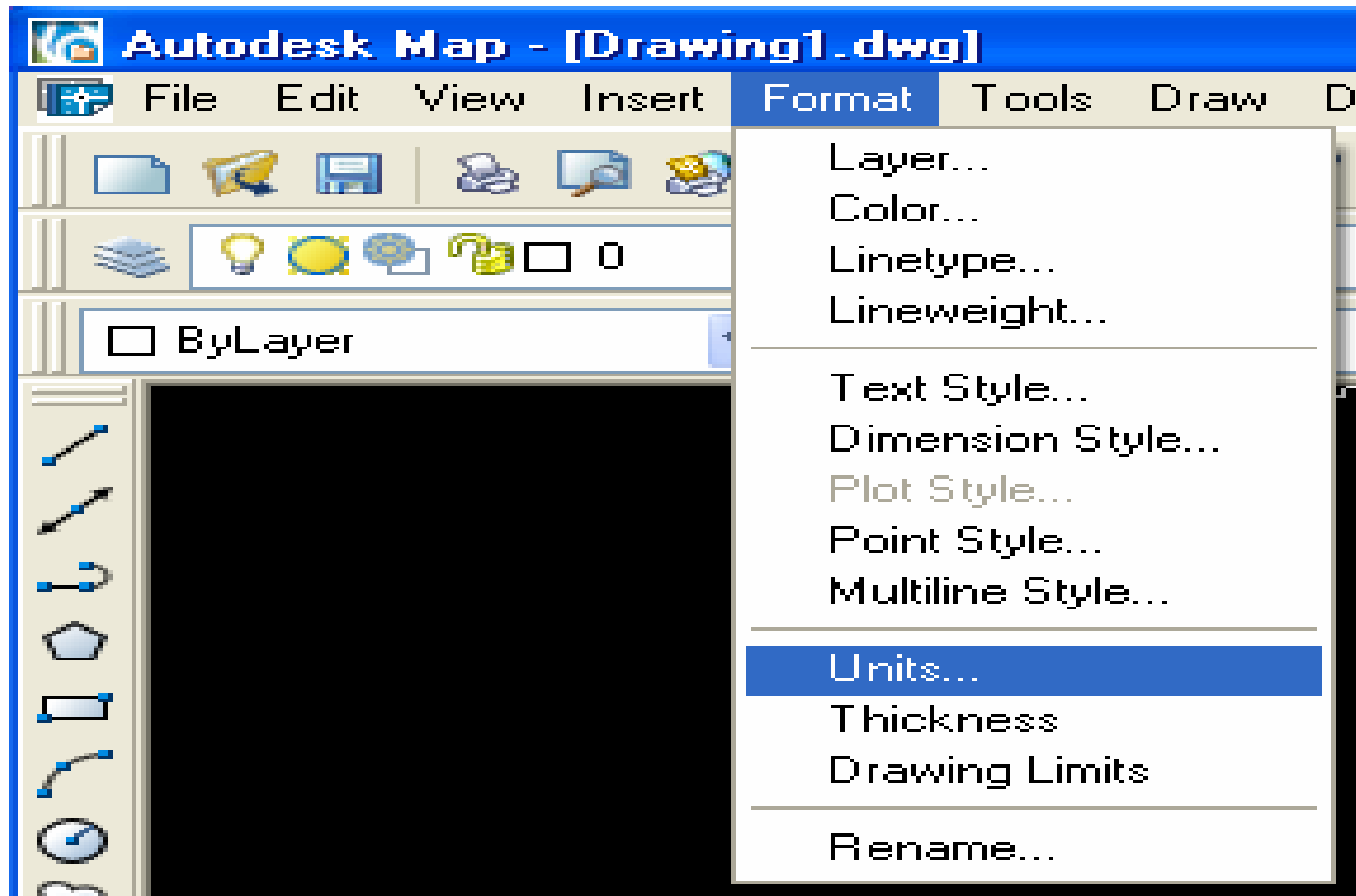
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



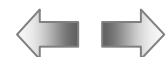
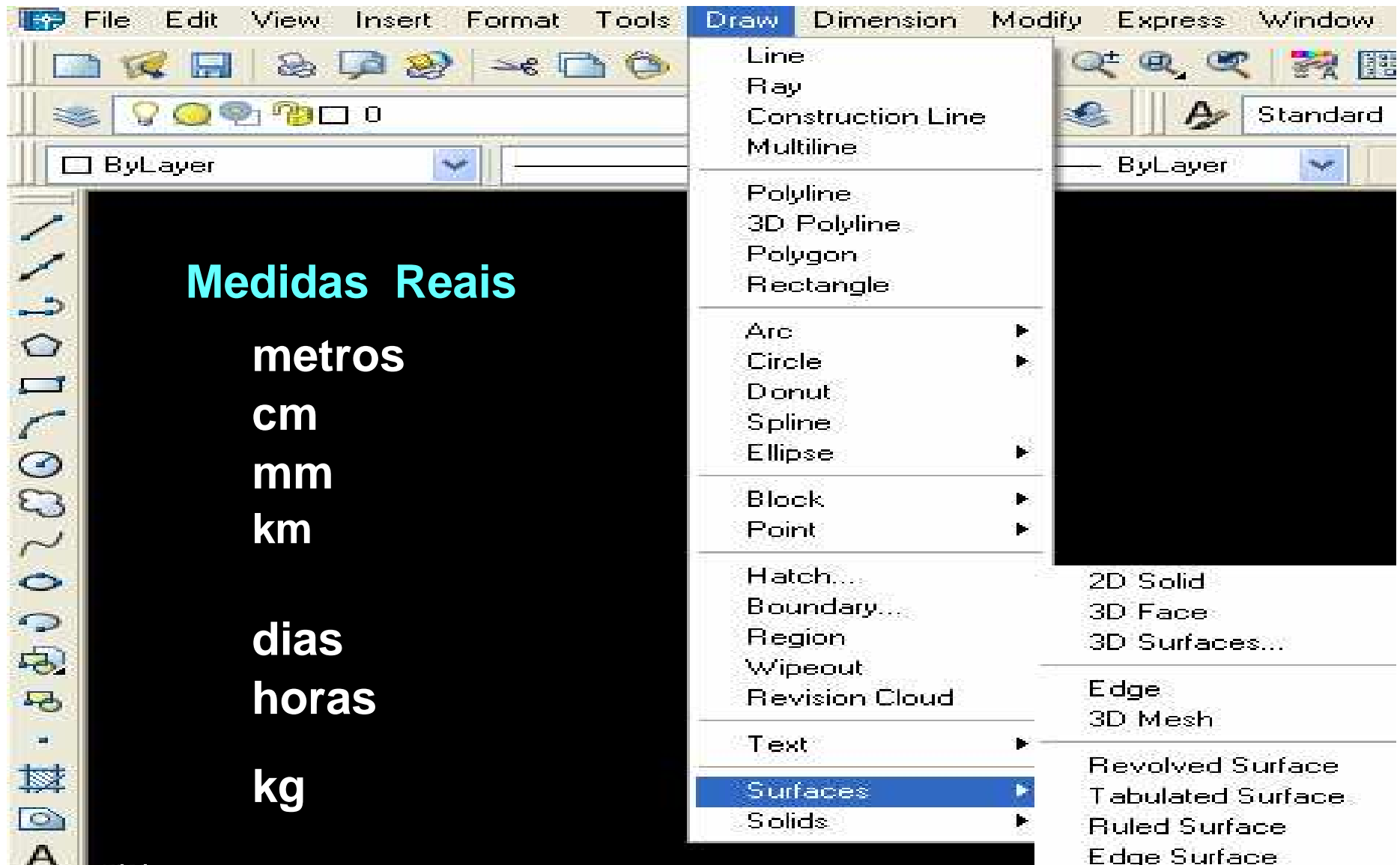
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



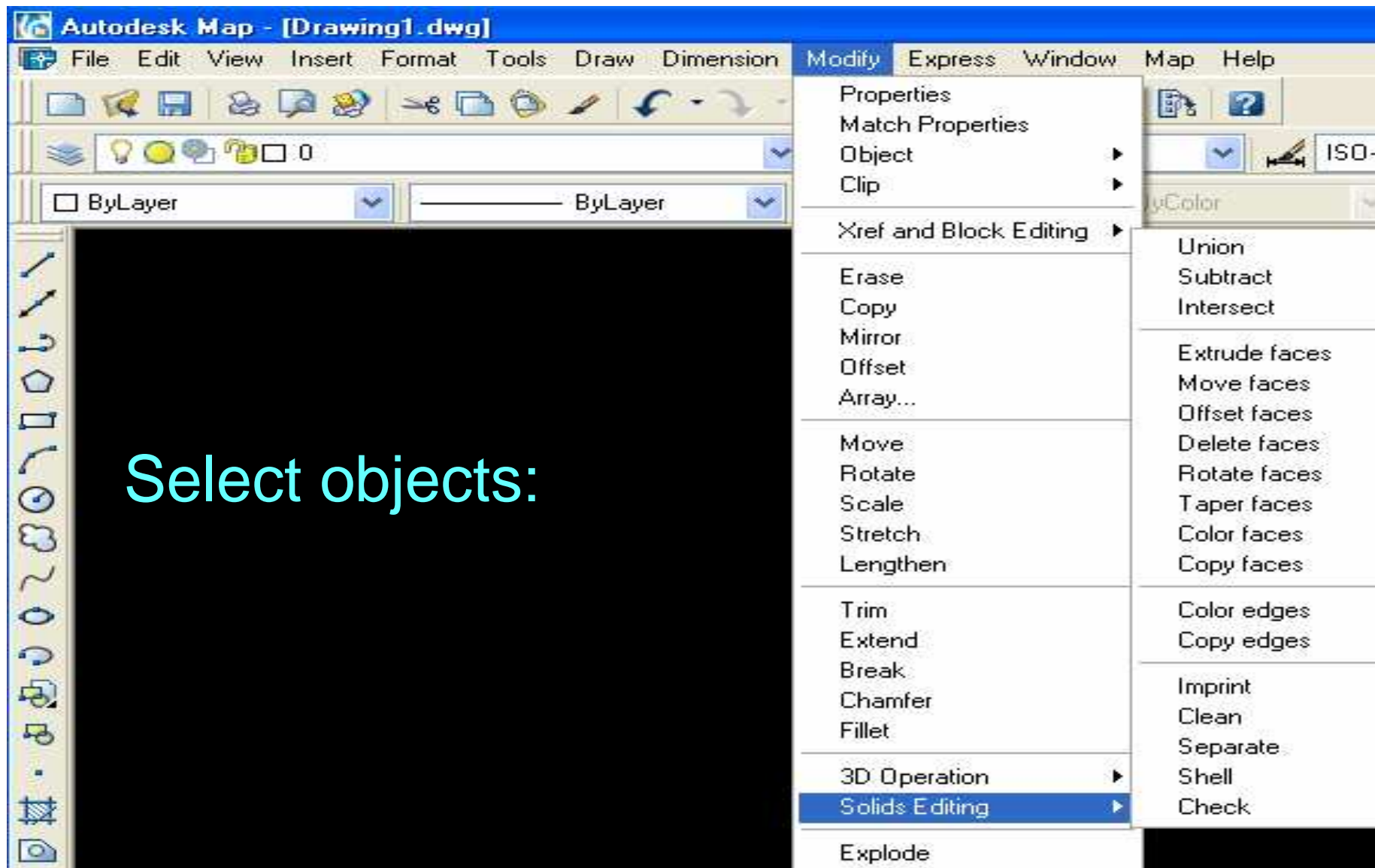
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



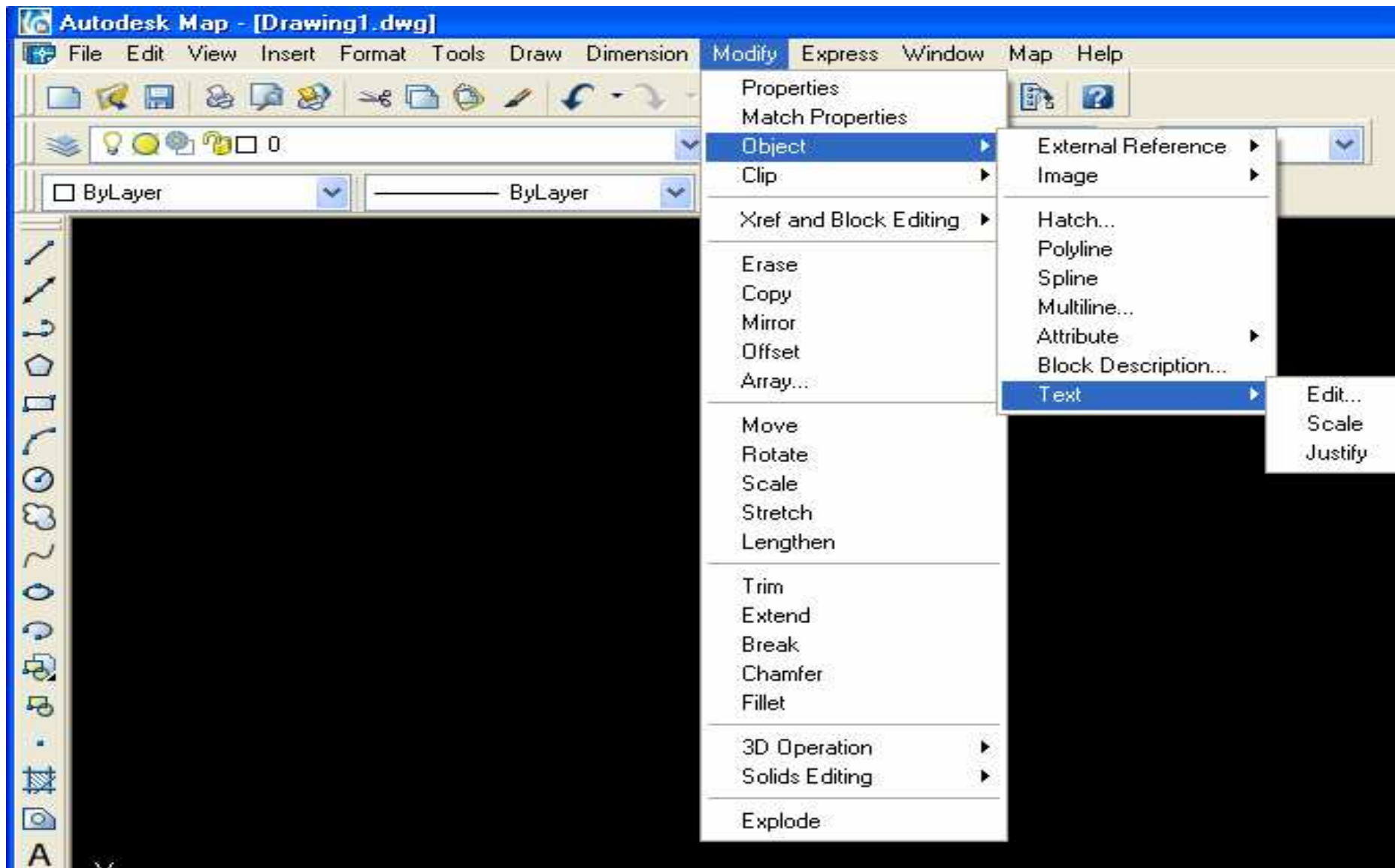
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



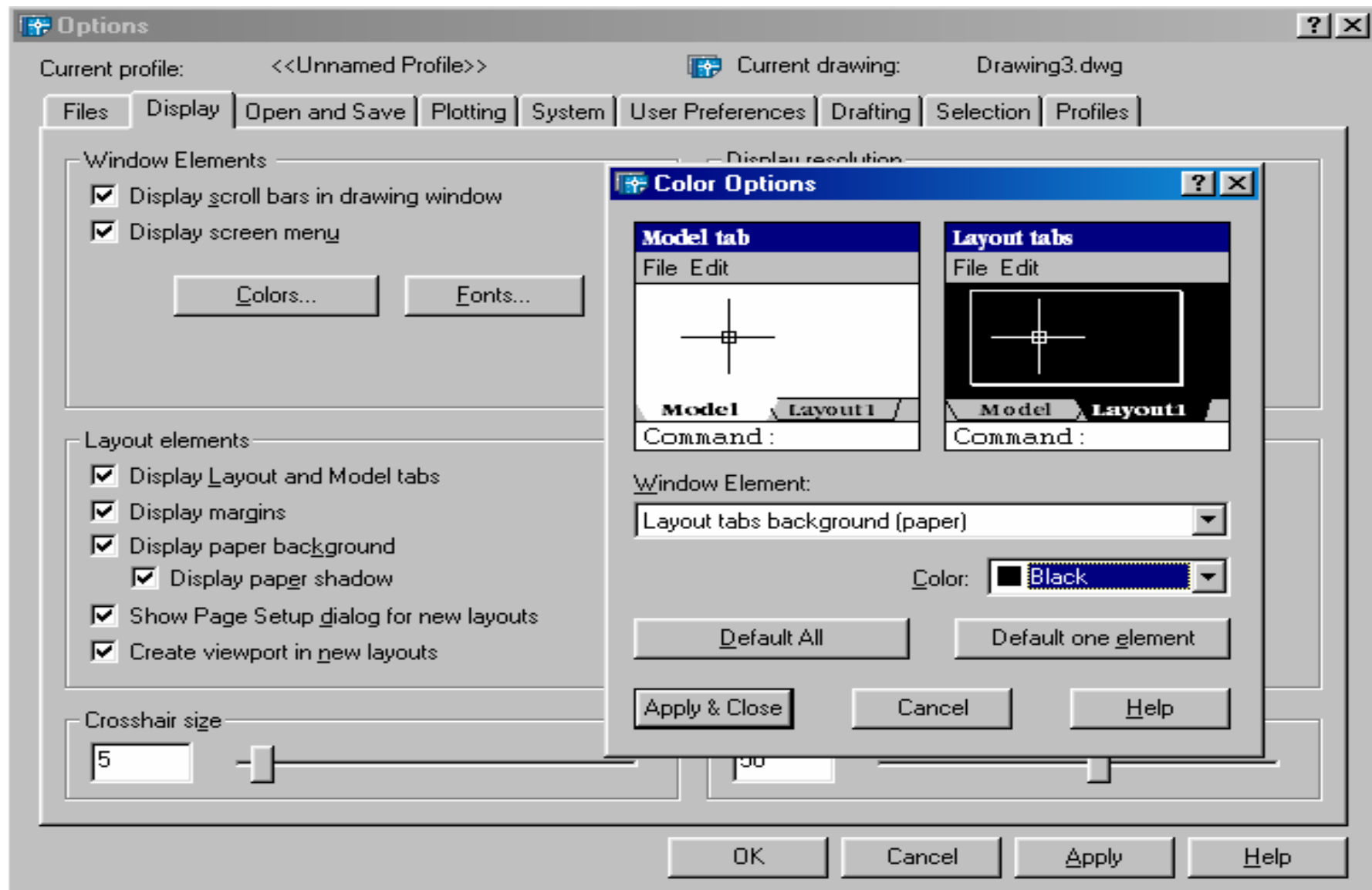
Select objects:



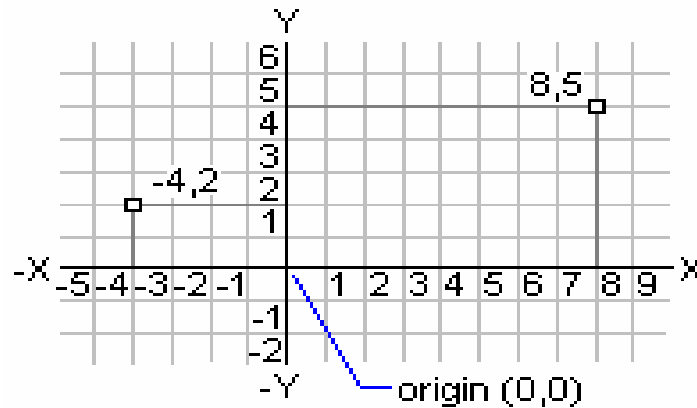
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



## Sistema de Coordenadas 2D



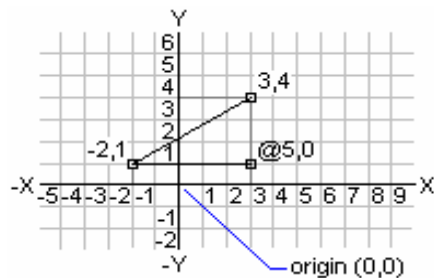
**Absolutas**

**X , Y**

**8 , 5**

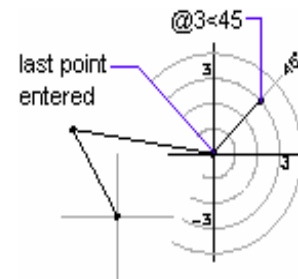
**Relativas @ dX , dY**

**@ 5 , 0**

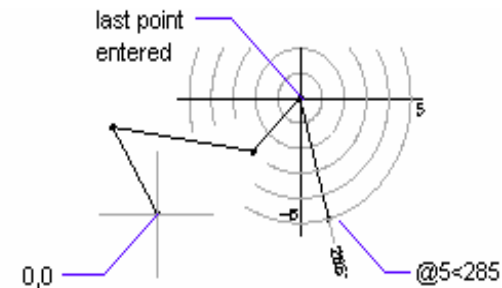


**Polares @ d < ang**

**@ 3 < 45**



**@ 5 < 285**

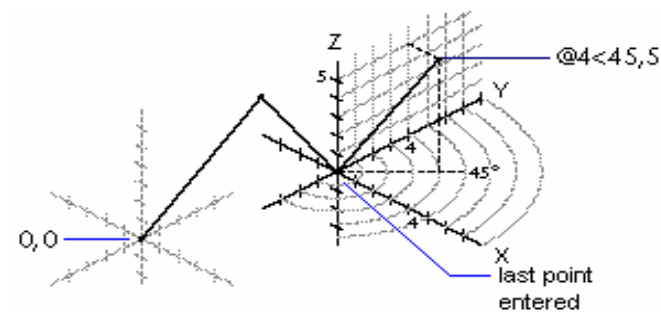
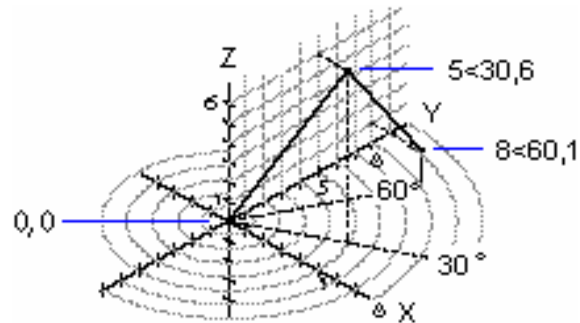


## Sistema de Coordenadas 3D

### Cilíndricas

@X<[angle from X axis],Z

@ 11<35,7

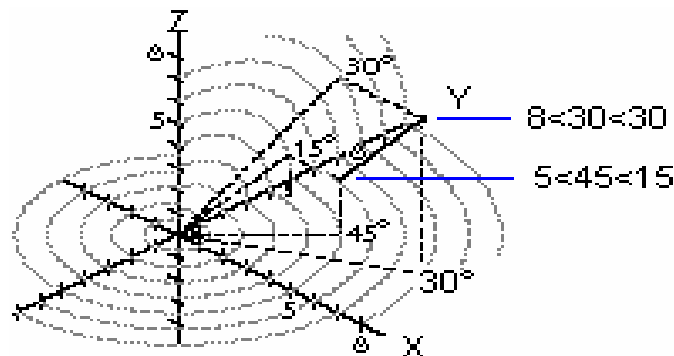


### Esféricas

@X<[angle from X axis]<[angle from XY plane]

@ 11<35,25

@35<15<30



## units

**Drawing Units**

Length  
Type:  
Decimal  
Architectural  
Decimal  
Engineering  
Fractional  
Scientific

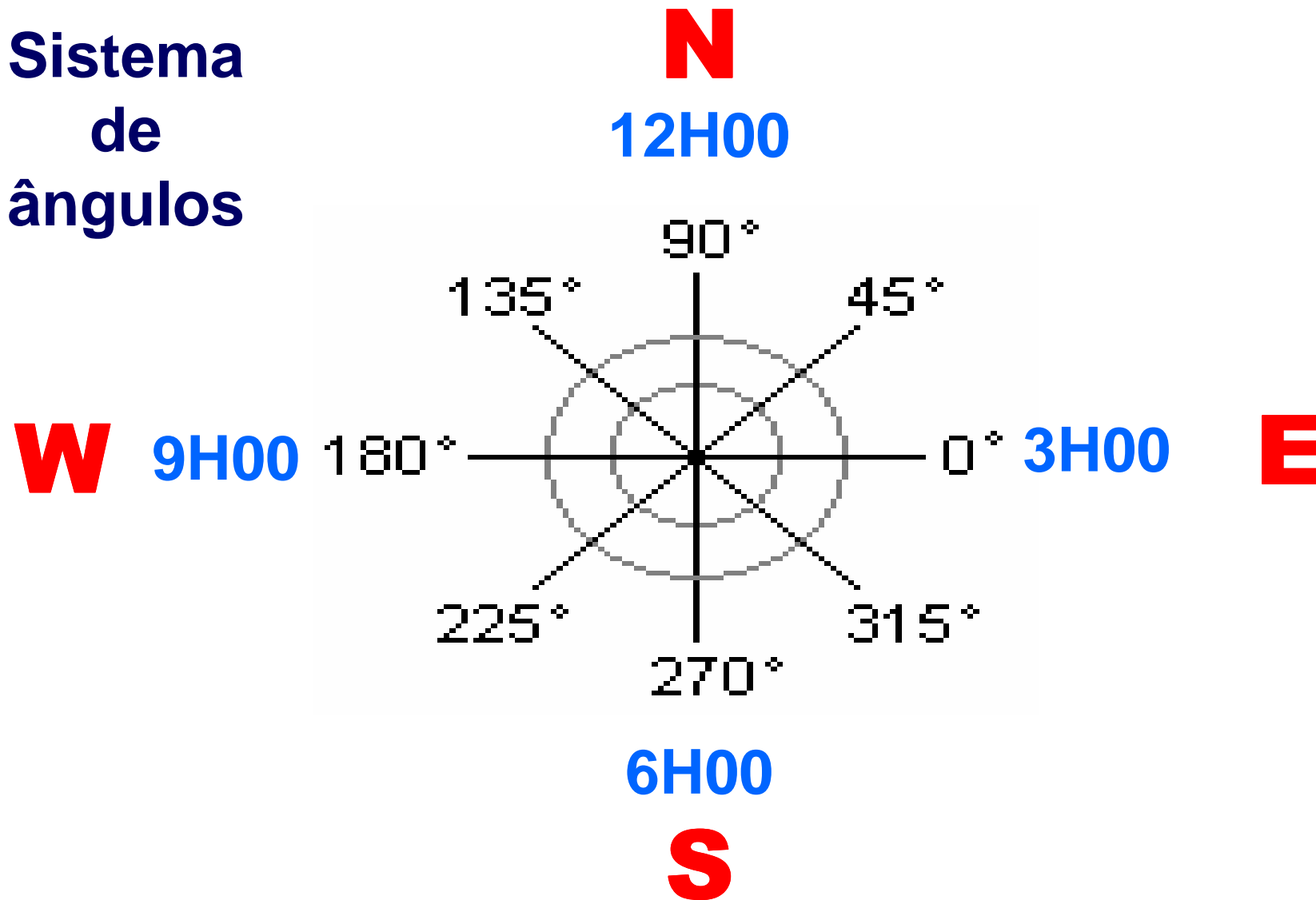
Angle  
Type:  
Decimal Degrees  
Precision:  
0  
 Clockwise

Drag-and-drop scale  
Units to scale drag-and-drop content:  
Millimeters

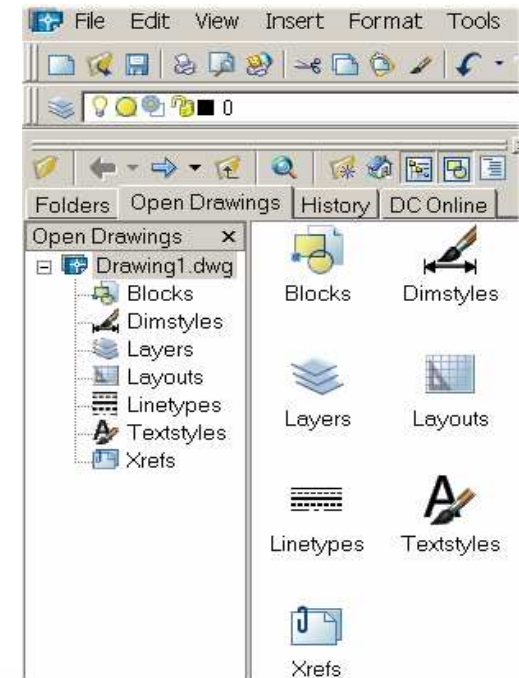
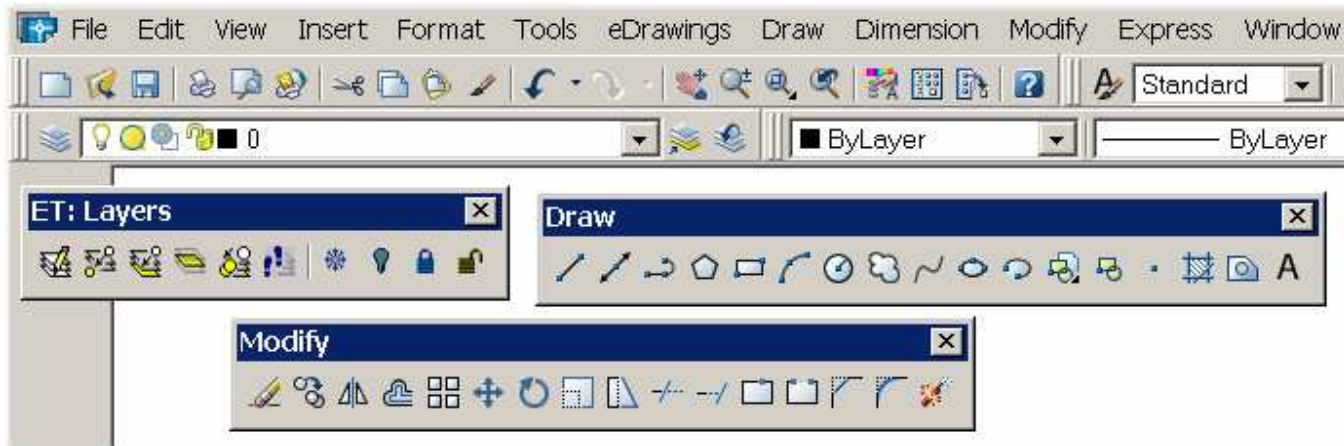
Sample Output  
1.5,2.0039,0  
3<45,0

OK Cancel Direction... Help

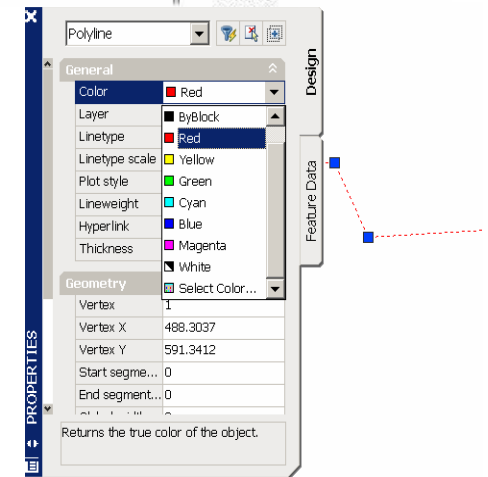
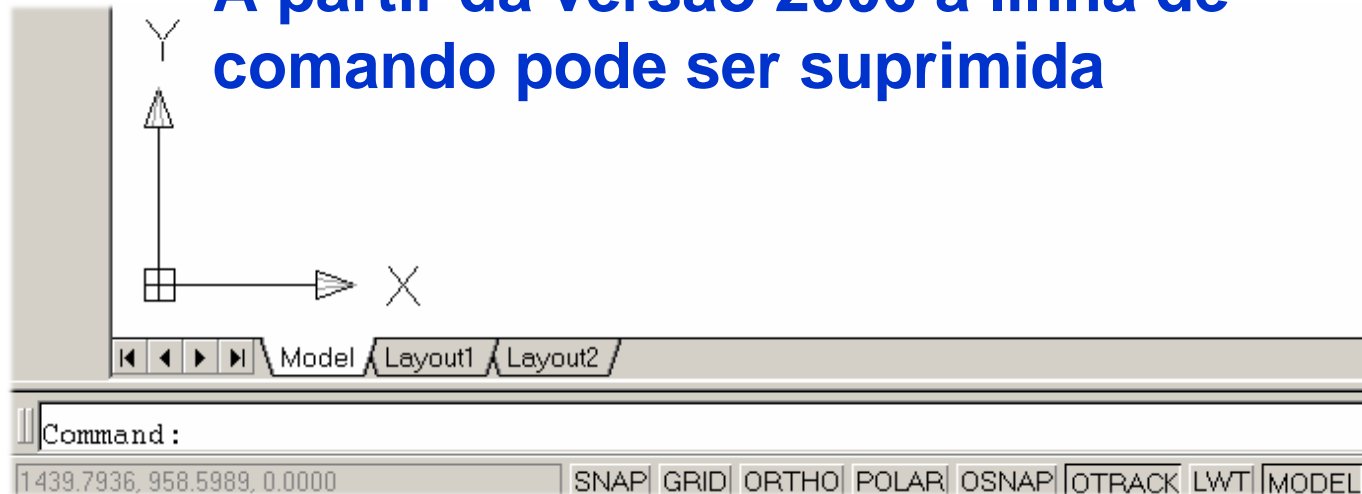
Sistema  
de  
ângulos



# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



A partir da versão 2006 a linha de comando pode ser suprimida



# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL

No selection

**General**

Color	■ ByLayer
Layer	0
Linetype	—— ByLayer
Linetype scale	1.0000
Lineweight	—— ByLayer
Thickness	0.0000

**Plot style**

Plot style	ByColor
Plot style table	None
Plot table attached to	Model
Plot table type	Not available

**View**

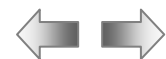
Center X	30.4014
Center Y	15.1766
Center Z	0.0000
Height	30.3621
Width	60.8208

**Misc**

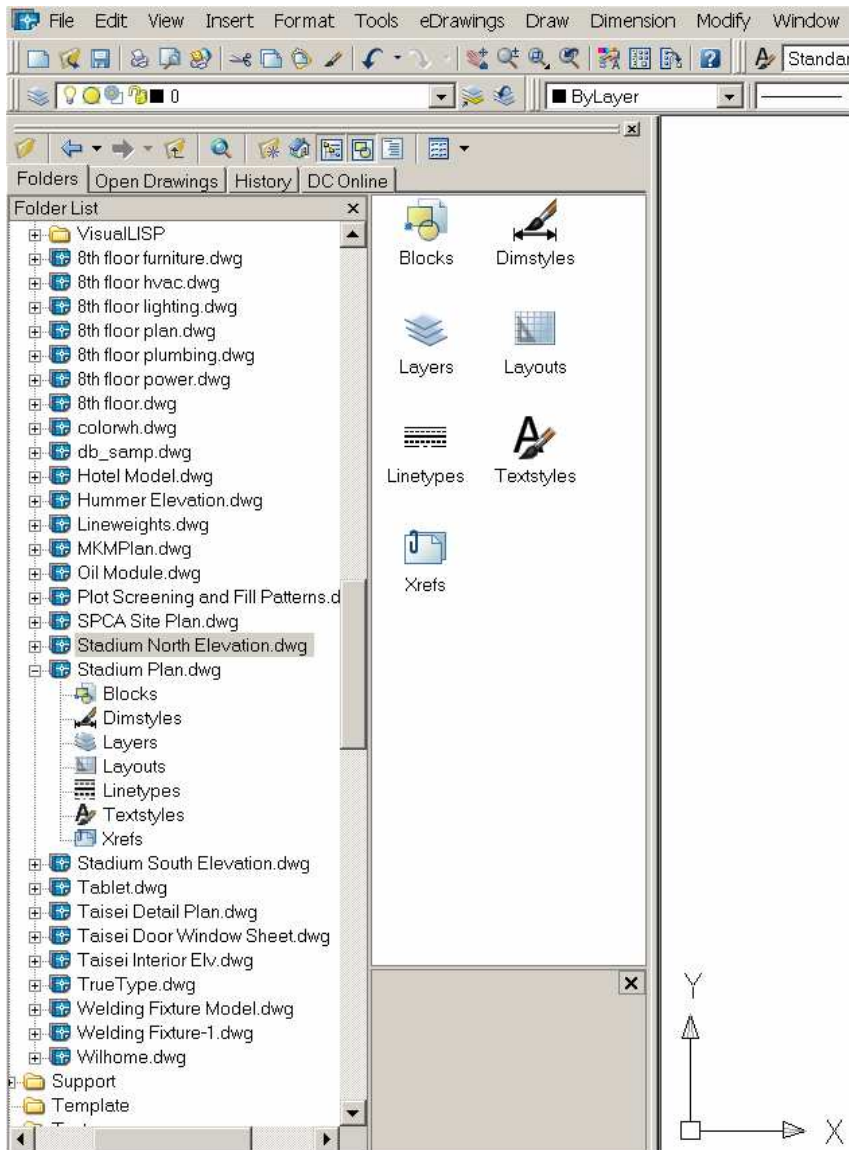
UCS icon On	Yes
UCS icon at origin	Yes
UCS per viewport	Yes
UCS Name	

**CTRL** **1**

Propriedades  
\_properties



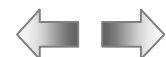
# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL

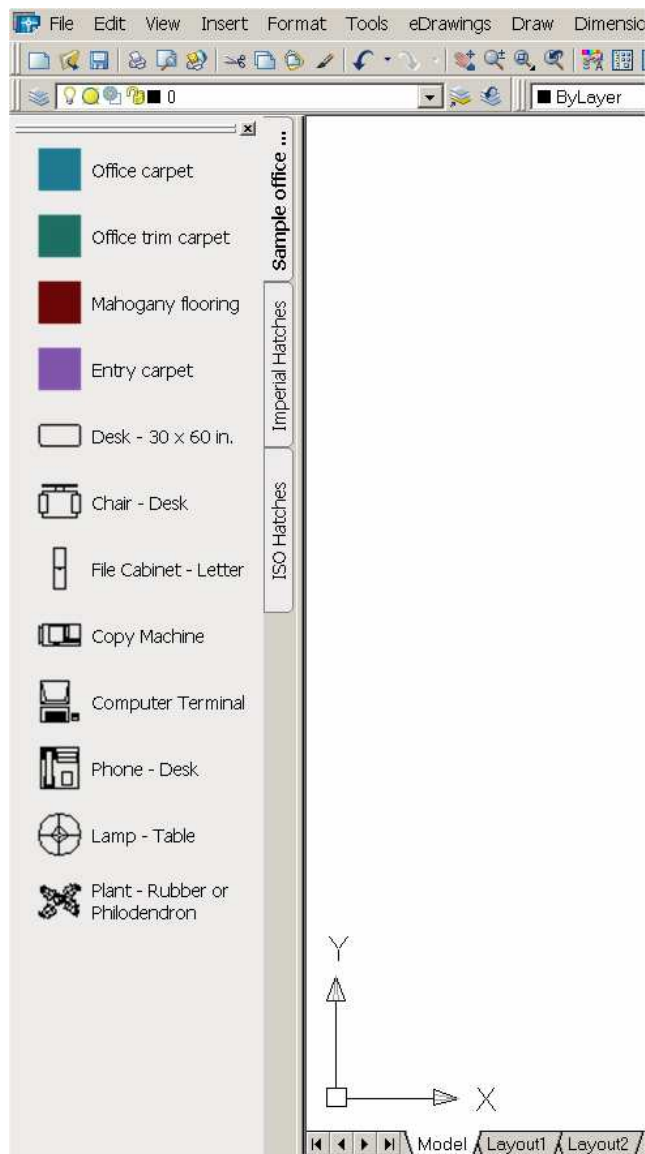


CTRL

2

Design Center  
\_adcenter





CTRL

3

\_ToolPalettes

# LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL

The screenshot displays the Autodesk Map 2004 software interface. The top menu bar includes File, Edit, View, Insert, Format, Tools, eDrawings, Draw, Dimension, Modify, Window, Map, and Help. Below the menu bar is a toolbar with various icons and a dropdown menu set to 'Standard'. The main workspace is divided into several panels:

- Design Center:** A central panel showing a 'Folder List' with a tree view of files and folders. The 'Stadium North Elevation.dwg' file is selected. The list includes folders like 'Blocks', 'Dimstyles', 'Layers', 'Layouts', 'Linetypes', 'Textstyles', and 'Xrefs', as well as numerous .dwg files such as '8th floor furniture.dwg', 'Hotel Model.dwg', and 'Stadium Plan.dwg'.
- Left Panel (Design/Feature Data):** Contains settings for the current selection (No selection). It includes sections for 'General' (Color: ByLayer, Layer: 0, Linetype: ByLayer, Linetype scale: 1, Lineweight: ByLayer, Thickness: 0), 'Plot style' (Plot style: ByColor, Plot style table: None, Plot table attached...: Model, Plot table type: Not available), 'View' (Center X: 731.2225, Center Y: 472.2859, Center Z: 0, Height: 948.1252, Width: 1467.9468), and 'Misc' (UCS icon On: Yes, UCS icon at origin: Yes, UCS per viewport: Yes, UCS Name:).
- Right Panel (Tool Palettes):** Displays a list of pre-defined objects and hatches, including 'Office carpet', 'Office trim carpet', 'Mahogany flooring', 'Entry carpet', 'Desk - 30 x 60 in.', 'Chair - Desk', 'File Cabinet - Letter', 'Copy Machine', 'Computer Terminal', 'Phone - Desk', 'Lamp - Table', and 'Plant - Rubber ...'. It also includes sections for 'Sample office ...', 'Imperial Hatches', and 'ISO Hatches'.

The status bar at the bottom indicates the current file path: C:\Programas\Autodesk Map 2004\S...\Stadium North Elevation.dwg (7 Item(s)).

