Recitation 2

February 13 & 14, 2003

Recitation Schedule

1) Points from the lecture & preview of Recitation 2.

2) To access your Architecture account, open My Computer and type: \\archfile\your_user_name

3) AutoCAD command practice session.

4) Discuss Assignment 2.
   - Hard copies due by Tuesday, February 18.
   - To bring in Larry's architectural symbols, right click and use the Copy with Base Point command.
   - Use Layer names similar to what is shown on the Assignment 2 handout.
   - Wall thickness: 6"

5) Work on Assignment 2.

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AutoCAD Commands (1 of 2)
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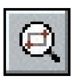
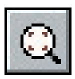
General Info:
1) To get rid of the TODAY Startup Dialog box: Tools > Options... > System tab > Startup: "Show traditional startup dialog"
2) To remove the Active Assistance box, right click on the yellow question mark in the bottom right of your screen, select Exit.
3) F1: Help F2: Command Line Text Window F3: Osnap On/Off F8: Ortho On/Off

AutoCAD Drafting:
1) Endpoints should always close.
2) No line segments.
3) Use line weights and LTSCALE to help the drawing read better.
4) The INSERT command allows you to import pre-made blocks. (Type INSERT > select the file with the Browse button > OK)

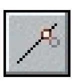
ZOOM: You can also type Z for Zoom in the Command Line - there are many options presented when you use this command.


WINDOW

DYNAMIC

PREVIOUS

EXTENTS

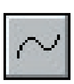
OBJECT SNAPS: To bring up a specific Osnap while in the middle of a command: hold down the Shift key and Right click at the same time. An Osnap menu will pop up from which you can pick the needed Osnap.


NEAREST

TANGENT

COMMANDS:

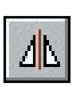

Construction Line (XLINE)

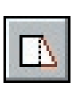

SPLINE

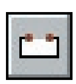

ARC

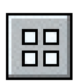

Polyline (PLINE)

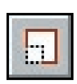

ROTATE


MIRROR

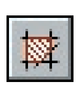

STRETCH


BREAK

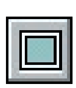

ARRAY

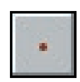

SCALE


EXPLODE


Boundary Hatch (BHATCH)


Boundary Hatch Edit (HATCHEDIT)
On Modify II Toolbar

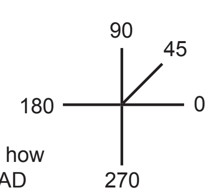

New Viewport (-VPORTS)
On Viewports Toolbar


POINT (NODE)

DDPTYPE
(Format menu > Point Style)

DIVIDE
(Draw menu > Point > Divide)

LINE: @2'<45
Another way you can specify the distance and angle to draw a line is to use the above text - 2' for the distance, 45 for the angle 45 degrees.



This is how AutoCAD sees angles.

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AutoCAD Commands (2 of 2)
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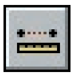
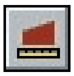
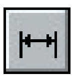


Distance Inquiry (DIST)

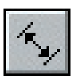


Area Inquiry (AREA)

The Distance and Area commands simply measure the distance or area of whatever it is you specify. Look down at the Command Line (or hit the F2 button) to see what AutoCAD has measured for you.

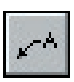


Linear Dimensions (DIMLINEAR)



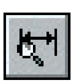
Aligned Dimensions (DIMALIGNED)

The Linear and Aligned Dimension tools are the two you'll use most often. There are also angle, diameter and radius dimension tools available that may be useful from time to tiime. Just click on the lines or circles you need dimensioned.



LEADER

The best way to use the Leader is to use the button on the toolbar: specify the first point like it asks, then specify the second point, hit Enter twice, enter the text you want to follow the arrow (you can type multiple lines if needed), when done with the text hit Enter twice again. If you type LEADER in the command line you will only need to hit Enter once after the second point is specified.



Dimension Style (DIMSTYLE)

When you hit "Modify" the Dimension Style Manager allows you to change the arrows to architectural ticks, alter the space between the dimension line and the object you are pulling it off of as well as organize how the text is oriented (horizontal, angled, etc.) and how it is dealt with when there isn't enough room for the text between the dimension lines. One of the more difficult parts to get under control is the height of the text. Instead of altering each block of text's height separately, use the "Fit" tab in the Dimension Style Manager: first hit "Modify", then choose the "Fit" tab, under "Scale for dimension features" select "Use overall scale of:" and change the number in the box. A lot of the decision in the number you place here can be based on trial and error, but to the right are some recommended Scale Factors which usually work well.

Eng. Dwg Scale	Scale Factor
1"=1'-0"	12
1"=10'	120
1"=100'	1200
1"=20'	240
1"=200'	2400
1"=30'	360
1"=40'	480
1"=50'	600
1"=60'	720

Plotting Scale	Scale Factor
1"=1'-0"	12
3/4"=1'-0"	16
1/2"=1'-0"	24
3/8"=1'-0"	32
1/4"=1'-0"	48
3/16"=1'-0"	64
1/8"=1'-0"	96
3/32"=1'-0"	128
1/16"=1'-0"	182

Line Type Scale Factor (type LTSCALE in Command Line)

What you see as a dashed line on a 12" x 9" screen will probably appear as a continuous line when you print out a drawing at the scale of your assignment. The LTSCALE command allows you to alter the length of the dashed segments so that the pattern will be seen in whatever scale you are working. To the right are some recommended LTSCALES.

Arch. Dwg Scale	LTSCALE
1"=1'-0"	6
3/4"=1'-0"	8
1/2"=1'-0"	12
3/8"=1'-0"	16
1/4"=1'-0"	24
3/16"=1'-0"	32
1/8"=1'-0"	48
3/32"=1'-0"	64
1/16"=1'-0"	96

Eng. Dwg Scale	LTSCALE
1"=1'-0"	6
1"=10'	60
1"=100'	600
1"=20'	120
1"=200'	1200
1"=30'	180
1"=40'	240
1"=50'	300
1"=60'	360