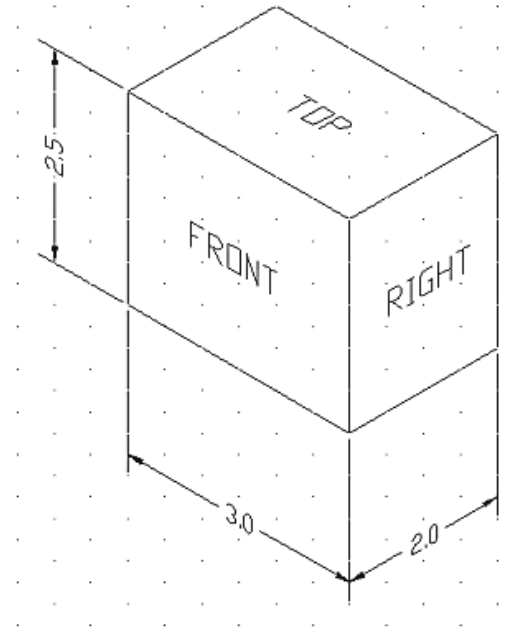


**AutoCAD 2010: One Step at a Time**  
**Lesson 4: Display Controls and Basic Annotative Text**

**10R4**

**Exercises**

1. Create the *Isometric Block* drawing (right), complete with text. Use the *MyIsoGrid1* template file you created in the C:\Steps\Lesson03 folder. [If that file isn't available, use the *IsoGrid1* file in the same folder.] Don't do the dimensions. Save the drawing as *MyIsoTxt* in the C:\Steps\Lesson04 folder.

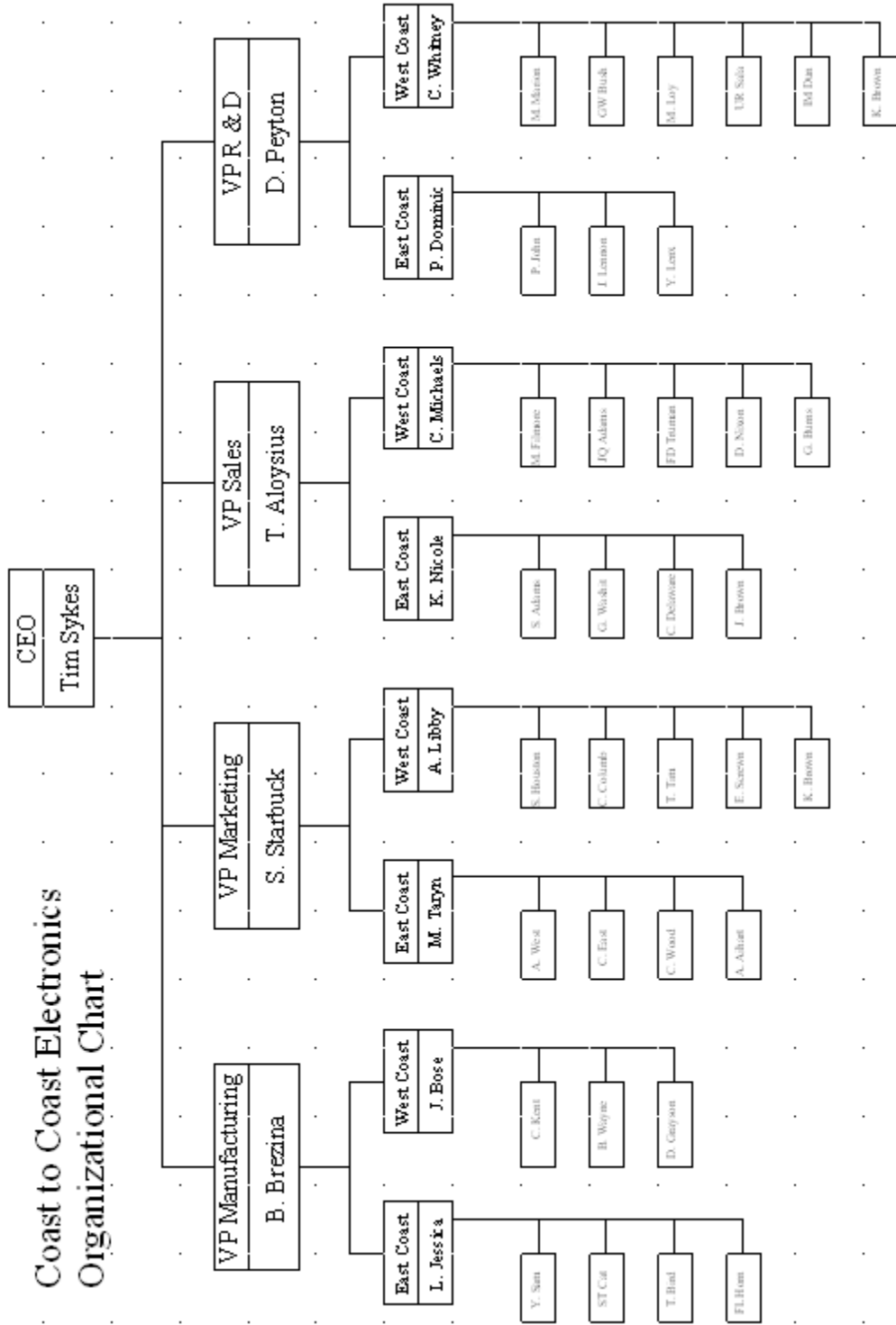


2. Start a new drawing with the following parameters:
  - 2.1. Grid: 1
  - 2.2. Snap:  $\frac{1}{2}$
  - 2.3. Lower left limits: 0,0
  - 2.4. Upper right limits: 36,24
  - 2.5. Text Heights:  $\frac{3}{8}$ ",  $\frac{3}{16}$ ",  $\frac{1}{4}$ " &  $\frac{1}{8}$ "
  - 2.6. Create the organizational chart in the figure on the next page. Feel free to substitute names for those used.

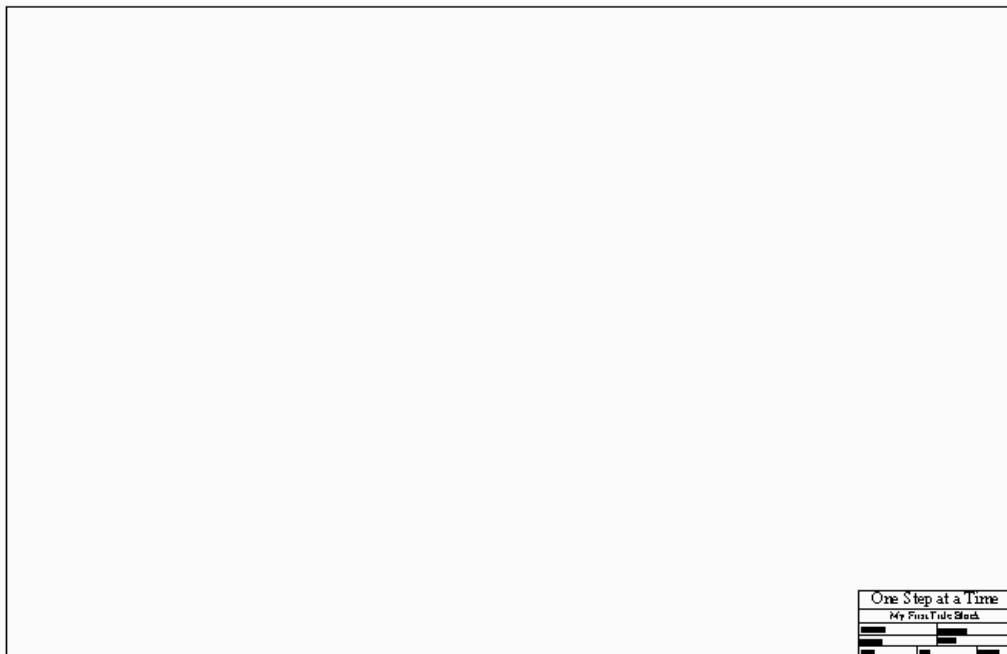
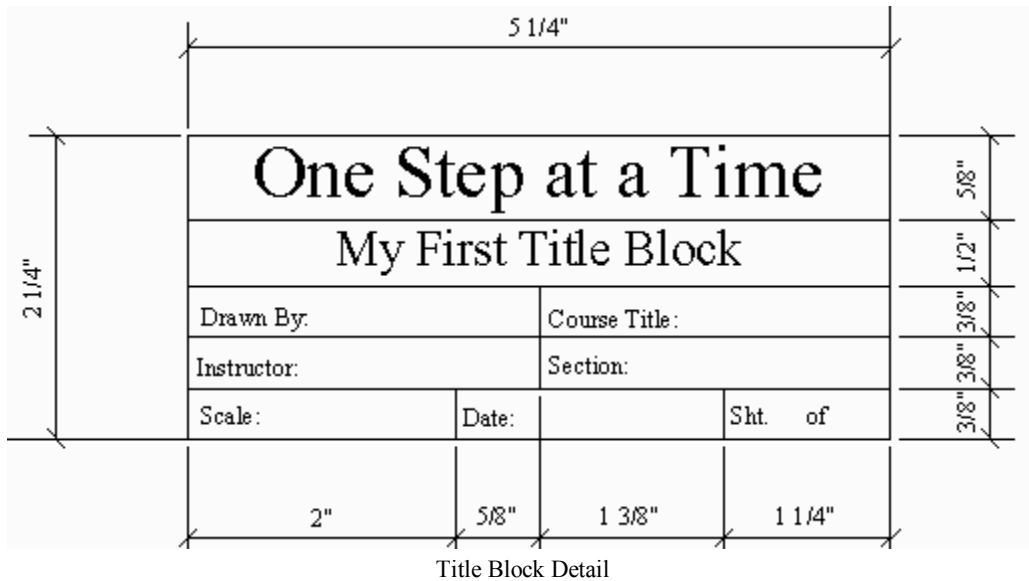
(HINT: Most of my students spend an hour or so drawing a number of rectangles only to discover that the text won't fit; then they must redraw them after entering the text. Enter the text *first*.)

- 2.7. Save the drawing as: *MyOrg* in the C:\Steps\Lesson04 folder.

# Coast to Coast Electronics Organizational Chart

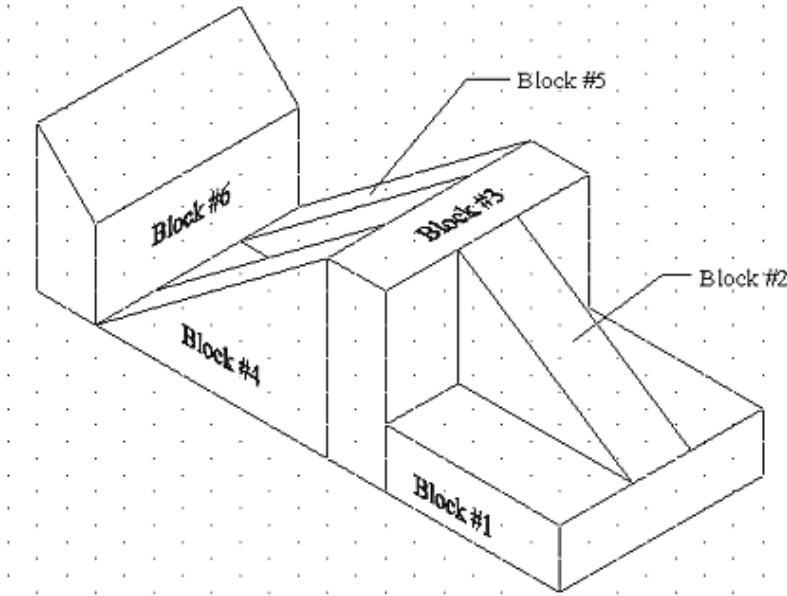


3. Create the border drawing using the following parameters:
  - 3.1. Grid: start with 1
  - 3.2. Snap: as needed
  - 3.3. Lower left limits: 0,0
  - 3.4. Upper right limits: 36,24
  - 3.5. Text size: 3/8, 1/4, 1/8
  - 3.6. Border starts at 1/2,1/2 and is 1/2" in from the limits on all sides (use the Title Block Detail to help)
  - 3.7. Save the drawing as *MyBorder* in the C:\Steps\Lesson04 folder.



Border Drawing

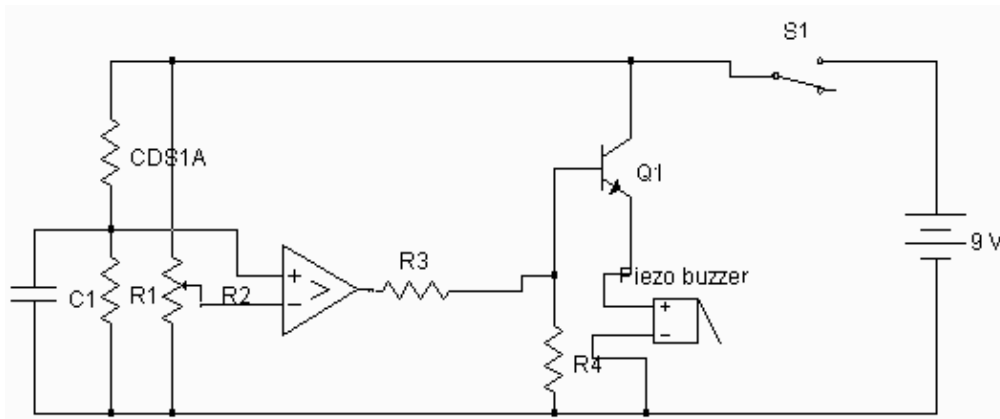
4. Using the *MyIsoGrid2* template you created in Lesson 3 (or the *IsoGrid2* template in the Lesson 3 folder), create this drawing.
  - 4.1. Text should be 1/4" and use the Times New Roman font
  - 4.2. Use the grid to guide your dimensions
  - 4.3. Save the drawing as *MyBlocks* in the C:\Steps\Lesson04 folder.






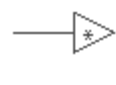








5. Using what you've learned, create the drawings that follow. Use a 1:1 scale on an 8 1/2"x11" sheet of paper for each. I used a 1/4" grid when I drew the objects. Use the title block shown first when creating the borders.


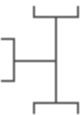








<h1 style="margin: 0;">North Harris College</h1>			
<h2 style="margin: 0;">Sample Welding Symbols</h2>			
Drawn By: [your name]	Checked By: B. Franklin	Project No.: [course num]	
Date: [date]	Scale: NTS	Approval: FDR	Sht: 1 of: 2













Title Block Detail



Electrical Schematic

			
<u>Resistor</u>	<u>Non-Polarized Capacitor</u>	<u>Ferrite-Bead Inductor</u>	<u>Analog Ground</u>
			
<u>Data Bus</u>	<u>Earth Ground</u>	<u>Chassis Ground</u>	<u>Quartz Crystal</u>
			
<u>Ferrite-Bead Inductor</u>	<u>Thermal Relay</u>	<u>General Amplifier</u>	<u>Antenna</u>
<b>North Harris College</b>			
<u>Sample Electrical Symbols</u>			
Drawn By: [your name]	Scale: NTS	Checked By: B. Franklin	Project No.: [course num]
Date: [date]	Approval: FDR	Sheet 1 of 2	

				
<u>Gate Valve</u>	<u>Socket Weld Tee</u>	<u>Eccentric Reducer</u>	<u>Socket Weld Cross</u>	<u>Union</u>
				
<u>Socket Weld Gate Valve</u>	<u>Cross</u>	<u>Concentric Reducer</u>	<u>Concentric Swage</u>	<u>Socket Weld Swage</u>
<b>North Harris College</b>				
Sample Piping Symbols				
<u>Drawn By:</u> [your name]	<u>Checked By:</u> B. Fialha	<u>Project No.:</u> [course number]		
<u>Date:</u> [date]	<u>Scale:</u> N1:	<u>Approved:</u> FDR.	<u>Sheet:</u> 1	<u>of:</u> 2

	<u>Fillet</u>		<u>Fillet Both Sides</u>		<u>Plug</u>		<u>Flush</u>
	<u>Square</u>		<u>Square Both Sides</u>		<u>V</u>		<u>Scarf Both Sides</u>
	<u>V Both Sides</u>		<u>Bevel</u>		<u>Bevel Both Sides</u>		<u>Scarf</u>
<b>North Harris College</b>							
<u>Sample Welding Symbols</u>							
<u>Drawn By:</u> [w name]		<u>Checked By:</u> B. Houlha		<u>Project No.:</u> [course num]			
<u>Date:</u> [date]		<u>Scale:</u> N1:		<u>Approval:</u> FDR.		<u>Sh.:</u> 1 of 2	

Please write your answers on a separate sheet of paper.

1. What is the hotkey for the zoom command?
2. What is the default for the zoom command (realtime zoom, implied windowing)?
3. Which zoom option will zoom to the limits of the drawing?
4. Which zoom option enables the user to place a box over the part of the drawing around which he wants to zoom?
5. Which zoom option gets as close as possible to the drawing while showing all the objects in the drawing?
6. Which zoom option will show you the last screen viewed?
7. Zoom in will zoom to a magnification of what scale?
8. Zoom out will zoom to a magnification of what scale?
9. What is AutoCAD's way of saying, "Zoom while I watch?"
10. Because realtime zoom won't allow the user to change screen position during the zoom, what zoom option should you use before realtime zooming?
11. What command uses a hand icon and moves the "paper" across your screen?
12. While in the realtime zoom or realtime pan command, what button will you press to get the realtime cursor menu?
13. What is the command you can use to change views without having to use a zoom or pan command?
14. The single text button on the Annotation panel calls what command (DText, MText)?
15. (T or F) It is necessary to type **J** at the Start point prompt of the Text command to justify text.
16. (T or F) The difference between the Align and Fit options of the Text command is that align will adjust the text height proportionally as it fits the text between the selected points.
17. For text to be read from the right side of the page, enter it at \_\_\_\_\_°.  
Enter   (18)   or   (19)   at the command prompt to edit text.
20. \_\_\_\_\_ is AutoCAD's default text style.
21. (T or F) AutoCAD can't use true-type fonts available for other Windows applications.
22. To create a text style that uses a 30° slant on the font, set the oblique angle to \_\_\_\_\_.
23. The command that replaces text on the screen with rectangles so that the text doesn't slow regeneration time is \_\_\_\_\_.

24. Write the command sequence to load an AutoLISP routine called *text* located in the C:\Steps\Lesson04 folder.
25. To open the Load/Unload Application dialog box, select Load Application under the \_\_\_\_\_ pull-down menu.

Identify these buttons:



26. 27. 28. 29.

30. As the drawing becomes larger and more complex,
- grid and snap are easier to use
  - OSNAPs such as endpoint and center are still important
  - all of the above
31. A drafter may access the Zoom command by
- typing zoom at the command prompt
  - using the Z hotkey
  - from the status bar
  - all of the above
32. (T or F) Implied windowing makes it possible to create a selection window without typing “w” for the Window option.
33. (T or F) The Zoom command includes these options: All, Center, Dynamic, Extents, Previous, and Scale.
34. (T or F) You should not Zoom Center before doing a Realtime Zoom.
35. (T or F) The hotkey for Pan is P.
36. (T or F) Using the View command, the drafter can create, store, and re-display specific views saved in a drawing.
37. (T or F) Panning and Zooming will save more time in drafting than restoring views from any position in the drawing.
38. The drafter can enter the View command by
- typing View or the V hotkey at the command prompt
  - picking Named Views from the View pull down menu
  - selecting it from the options list of the Zoom command
39. (T or F) When you select the Define Window button in the New View/Shot Properties dialog box, the dialog box will move to one side and AutoCAD will prompt you to locate the window.
40. (T or F) AutoCAD’s transparent commands – Pan, Zoom, and Redraw – can be activated while in the middle of running another command.

41. (T or F) DT is the hotkey for the Text command and will allow only one line of text.
42. (T or F) T is the hotkey for Multiline Text which uses a word processor approach to enter text.
43. (T or F) The second line of prompts provided by the Text command offers options such as Specify Start Point and Justify.
44. (T or F) Text justifications include Align, Match, Center, Middle, and Right.
45. (T or F) Transparent commands such as Zoom or View can be activated during the text command.
46. To underline text, a drafter can type
  - a. CTRL+C
  - b. CTRL+U
  - c. CTRL+D
47. The Text Edit button is located on
  - a. the ribbon's Modify panel,
  - b. the Modify toolbar,
  - c. neither a nor b.
48. (T or F) You can access the DDEdit command via the Modify pull down menu.
49. \_\_\_\_\_ is a tool we use to have AutoCAD automatically size our text for us.
50. (T or F) You can tell AutoCAD to prepare the text for more than one plot size.
51. Control how AutoCAD manages annotation scales by setting the \_\_\_\_\_ system variable.
52. To set the drawing's annotation scale, pick the appropriate down arrow on the \_\_\_\_\_.
53. To use a text height of 1/8" when using annotative text, enter \_\_\_\_\_ at the Specify paper height prompt of the text command.
54. Use the \_\_\_\_\_ command to resize text once it's been entered.
55. Use the \_\_\_\_\_ command to show the navigation wheel.
56. The navigation wheel of most use in 2D AutoCAD is the \_\_\_\_\_ wheel.
57. (T or F) To access the Rewind tool, you must be using a mini wheel.
58. Use the \_\_\_\_\_ command to return to a standard 2D view if you accidentally skew the drawing view with the Orbit tool.
59. In 2D work, which View type should you use on the New View/Shot Properties dialog box? (Still, Cinematic, Recorded Walk, 2D View)
60. (T or F) The Show Motion tool is of no use in 2D work.

## Answers

- |                                     |                   |
|-------------------------------------|-------------------|
| 1. Z                                | 31. d             |
| 2. Either                           | 32. T             |
| 3. Zoom All                         | 33. T             |
| 4. Zoom Dynamics                    | 34. F             |
| 5. Zoom Extents                     | 35. T             |
| 6. Zoom Previous                    | 36. T             |
| 7. .5x                              | 37. F             |
| 8. 2x                               | 38. a & b         |
| 9. Realtime                         | 39. F             |
| 10. Center                          | 40. T             |
| 11. Pan                             | 41. F             |
| 12. Right Mouse                     | 42. T             |
| 13. View                            | 43. T             |
| 14. DText                           | 44. F             |
| 15. F                               | 45. F             |
| 16. T                               | 46. b             |
| 17. 90                              | 47. c             |
| 18. Ddedit or ed                    | 48. T             |
| 19. Ed or ddedit                    | 49. Annotation    |
| 20. Standard                        | 50. T             |
| 21. F                               | 51. AnnoAutoScale |
| 22. 30                              | 52. Status bar    |
| 23. Qtext                           | 53. 1/8           |
| 24. (Load "C:/Steps/Lesson05/Text") | 54. ScaleText     |
| 25. Tools                           | 55. NavSWheel     |
| 26. Zoom Window                     | 56. View Object   |
| 27. Zoom Previous                   | 57. F             |
| 28. Zoom Extents                    | 58. Plan          |
| 29. Pan                             | 59. Still         |
| 30. b                               | 60. F             |