AutoCAD 2014

The following are steps to create a Template from scratch:

- Open AutoCAD

- File > New > acad.dwt

- Create layers:

Type ***Layer*** to bring up the *Layer Manager Properties*

- Con – blue (5) – continuous linetype
- Center –red (1) –center linetype
- Hidden –green (3) –hidden linetype
- Obj –gray (8) –continuous linetype
- Dim –white (7) –continuous linetype
- Hatch –magenta (6) –continuous linetype
- Text –green (3) –continuous linetype
- Vports –magenta (6) –continuous linetype –No to plot

Use ***Standarized Lineweights*** handout to assign lineweights. Usually AutoCAD creates a Title Block layer when inserting the title block, so we will wait until then to see if we need to create it manually.

Set to current the Layer you would like to use first when opening the template

- Create Text Styles:

Type ***Style*** to bring up the text dialog box.

- Select *Annotative* and click *New* to enter the name of the new text style >OK
- Click *New* again to keep creating text styles.
  - RomanS –width .9
  - RomanS Oblique –width .9 –oblique 15˚
  - Times New Roman Bold –width 1 –font Bold
  - CityBluePrint –width 1.0 –oblique angle 0

Set to current the Text you will use first when opening the template.

- Create Dimension Styles as needed. Follow instructions from "***Things Every AutoCAD User Should Know***" handout. Refer to pages 6 & 7 for Mechanical; 7 & 8 for Architectural, and page 9 for Civil style.

For a Mechanical Style we will add Child Variations for specific uses like Radius dimensions and Diameter dimensions. The following instructions are for a Mechanical dimension style. However, ***we will create an Architectural template and need to create an Architectural Dimension style. Please refer to the handout mentioned above for details.***

Type **D** to bring up the Dimension dialog box > ***New*** > assign New Style Name: Mechanical > check Annotative,

- ***Lines*** tab change color to Red for Dimension lines and Extension lines; Baseline Spacing .025; Extend beyond Dimension lines .0625 > Enter
- ***Symbols and Arrows*** tab set Arrow size to .125; Center marks to Line and size .0625 > Enter
- ***Text*** tab select RomanS text style; Text color to Green; Text height .125; Offset from Dimension Line to .06
- ***Fit*** tab check off Arrows under Fit Options and make sure Annotative is checked under Scale for Dimension Features. Uncheck Suppress arrows if they do not fit inside extension lines
- ***Primary Units*** tab set the number of decimal places to 3 and check the box for Leading in the Zero Suppression area, in both areas. Make sure the precision for Angular dimensions is set to 0
- ***OK*** to go back to dialog box and select ***New*** making sure the new style is selected from the list on the left
- Under ***Use for;*** select Radius dimensions > Continue
- ***Symbols and Arrows*** tab set the Center Marks to "none"
- ***Fit*** tab set Fit to "both text and arrows" and set Fine Tuning to "Place Text Manually when dimensioning"
- ***OK >*** select the New Dimension Style: ***Mechanical* > Set current** > ***Close***

- Create a Multileader Style
  Same as for Dimension Styles here we are describing a Mech Multilider Style. Create an Architectural Multileader Style for straight leaders, and another one for spline leaders. It is best to check the video tutorial for this section.
  - ***MLEADERSTYLE*** > select Annotative > New, name it Mech > Continue
  - ***Leader Format*** tab select Straight under general and color Red; set the Arrowhead size to .125
  - ***Content*** tab select RomanS under Text Style; text color Green and Text height .125
  - ***Enter > OK > Set current > Close***

Make some changes to AutoCAD using ***Options*** command

- ***Display*** Tab change Crosshair size to 100; display resolution of arc and circle smoothness, set to 20000; Rendered object smoothness, set to 10; display performance, check the box labeled Draw true silhouettes for solids and surfaces.
- ***Open and Save*** tab make sure Autosave box is checked and set the time to 10 minutes > OK (to close dialog box). You may also type SAVETIME and change the automatic save time from there

- ***On the Status Bar,*** below the graphics area, Turn On *Ortho (F8), OSnaps (F3), OTrack (F11),* and *Dynamic Input (F12).*

- Right click on the ***Osnap*** button in the Status bar at the bottom of the graphics screen to change some settings. Turn On: *Endpoint, Midpoint,*

Perpendicular, and *Intersection*. If you know you will work with circles you may turn on *Center* and *Quadrant* Osnaps as well. Otherwise you may turn them on as you work on your file using SHIFT+right mouse button –to select from the menu, or by typing the first three letters of the Osnap, then hit Enter.

- Left click on *Layout 1*, then Right click and select *Rename*. Type a name which is meaningful to you, like ANSI-C and hit Enter. Proceed to follow instructions from ***Setting Up a Template*** file. ***Rename the Layout1 as ARCH-D since we are working on an architectural template.***

- Still in the Layout tab (now renamed) in Paper Space with Title Block layer current use Insert command and insert a, Arch Title block using the Insert command and browsing the template. The path can be found at Options > Files tab > Template Settings > Drawing File Template Location; this path is different for every computer

- Use ***Explode*** command to explode the Title Block

With the title block exploded change colors of the objects that are part of your Title Block. Here you will create your own Title Block with your own logo. Colors chosen have to be the ones with lineweights assigned in the Plot Styles Table (.ctb table). You will change the colors in the Properties (of the layer) Panel, only the color, not the layer. All different colors should be in the Title Block layer.

- Once you have designed your Title block, your logo and assigned colors from .ctb proceed to add Attributes to your Title Block.

- To add Attributes to the title block use the ***ATTDEF*** command
  - Enter the Tag name -no spaces allowed-
  - Enter the Prompt which is the action to be performed
  - Select the text justification, style and height
  - Hit OK and place the Tag in the title block

After all Attributes are created use the ***Block*** command to block your title block. Name the block Title Block, you can add the name of the paper size you are using.

- Save as ***dwg*** and name it My Template, or use template name (like ANSI-C for Mech, and Arch-D for architectural) with your initials in front of the name.

- Save it as ***dwt*** and name it My Template, or use template name (like ANSI-C for Mech, and Arch-D for architectural) with your initials in front of the name.

Note: when opening a new file you will be opening a Template file with a .dwt extension. This will be converted to a Drawing file (.dwg) once opened.