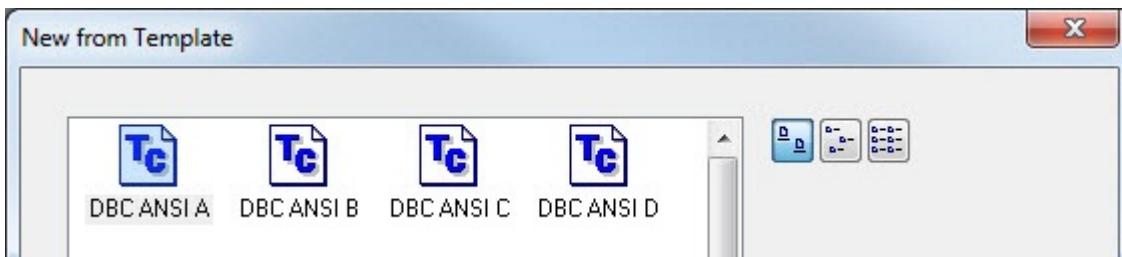
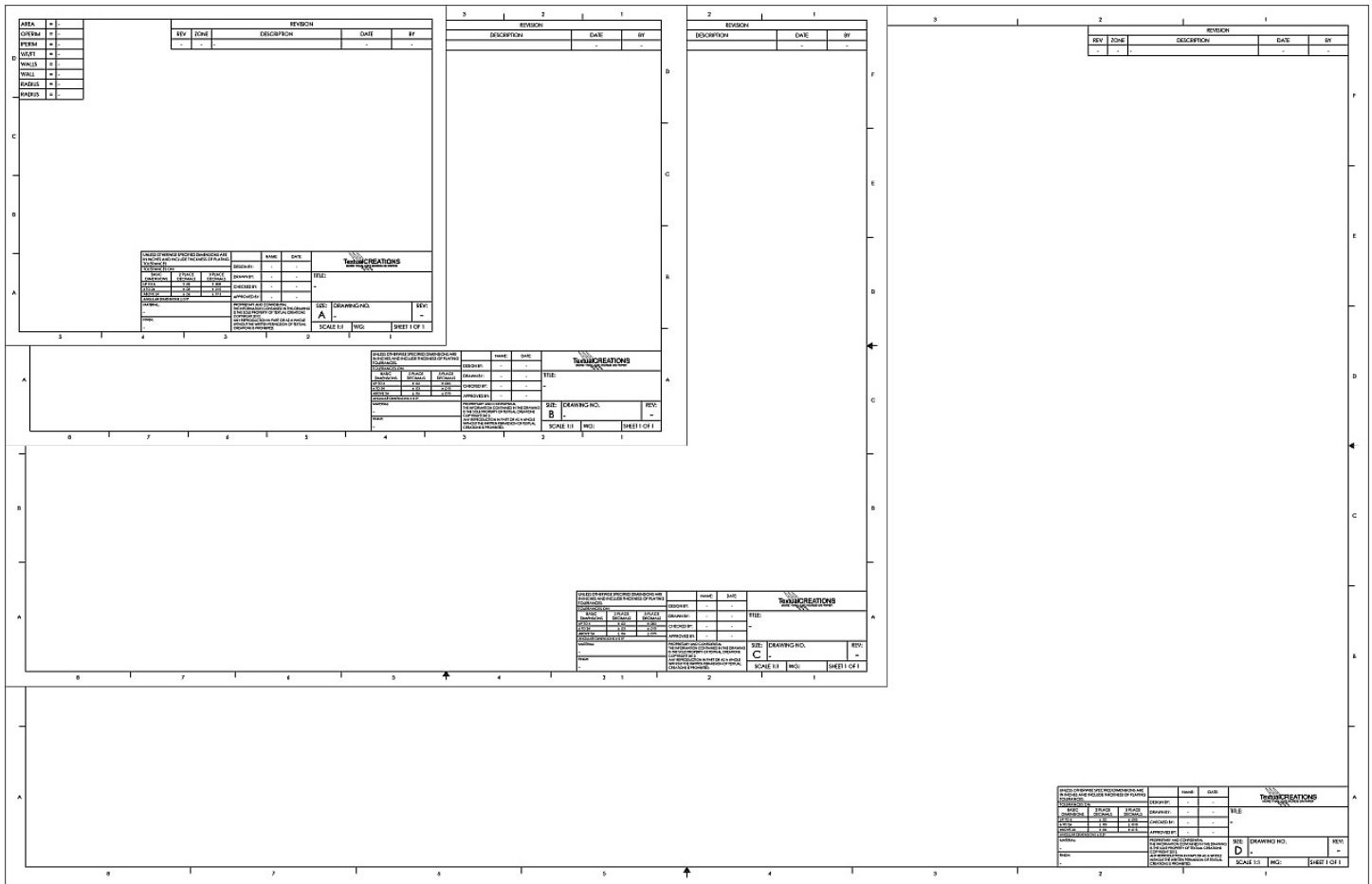


TurboCAD Pro V19.1 - Drawing Template

Create Reusable Drawing Templates Including ANSI A, B, C and D Size Sheets

Using 64-bit version of TurboCAD

Donald B. Cheke



Copyright © 2012 Donald B. Cheke

TurboCAD is a registered trademark of IMSI/Design.



Published by:

Donald B. Cheke
Saskatoon, SK Canada

Visit: www.textualcreations.ca

All rights reserved

No part of this document may be reproduced, copied, stored on a retrieval system or transmitted in any form without written permission from the author. The purchaser may, however, print one copy of the document to paper and may make one backup copy of the downloaded material for personal safe keeping.

Limitation of Liability

While every effort has been taken in the preparation and the writing of this document the author assumes no responsibility for errors and/or omissions nor for the uses of the material and the decisions based on such use. No warranties are made, express or implied with regard to either the contents of the document, its merchant ability or fitness for a particular purpose. The author should not be liable for direct, indirect, special, incidental or consequential damages arising out of the use or inability to use the contents of this document.

Special Note

All of the work presented within this tutorial is based on TurboCAD Pro V19.1 (64-Bit). Although users of previous versions are welcome to try the tutorial it cannot be stated what results will be achieved. Many changes, some subtle and others not so subtle, are made with each program revision. Although many steps and directions would be generic some may not be. The same can be said for tools between versions. Older versions may not have the same tools as Pro V19.1 and if the same tools are available the tools themselves may have been revised and hence, work in a different manner than they previously did.

Table of Contents

Table of Contents.....	3
Introduction	4
Drawing Engine Selection.....	6
Setup.....	8
Additional Setup for Template.....	29
Paper Space – ANSI Size A	47
ANSI Size B	85
ANSI Size C	95
ANSI Size D	109

Introduction

One of the fundamental tenets of any CAD package is to never draw the same thing twice. This is very sound advice and a user would be wise to broaden this tenet to its fullest definition. This not only includes using blocks and symbols while drawing but it includes devising ways to approach the more mundane things such as repeating text and establishing tool properties or styles. One way to address much of this is to create a drawing template(s) where many properties have been pre-established and which includes at least one paper space page that has a reusable title block.

Within the tutorial the reader will be led through each keystroke to produce four ANSI size reusable TurboCAD templates with title blocks. These are based on the mechanical style the author uses in his daily work with one client within the manufacturing industry. The reader will find much discussion within the pages of this tutorial that will hopefully provide good insight into choices that are made.

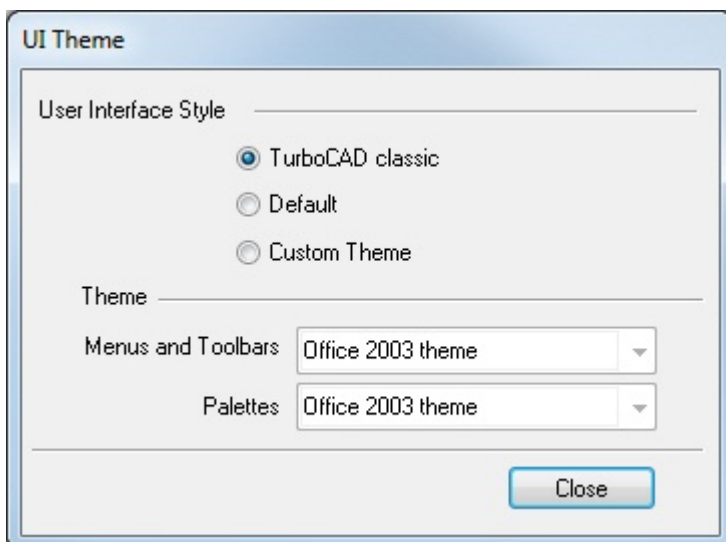
This tutorial is in no way intended to teach drafting standards but rather it is intended to teach the use of some of the tools that TurboCAD has to offer and to introduce the new user to a drawing methodology. The author feels confident that the techniques outlined within the tutorial can help lay the foundation for future successful TurboCAD drawing and illustration for even the newest user.

As with any technically advanced software, the user is generally faced with a steep learning curve. It is the hope of the author that the money and time spent working through a Textual Creations tutorial will help ease the learning and allow the reader to come away feeling confident that they made a wise decision.

This tutorial will assume that the reader has the Platinum edition of TurboCAD Pro V19.1, although no architectural or mechanical specific tools are used that the author is aware of.

There are many ways to approach a project and it is likely that each person using the program would proceed in very different ways, so be open to alternative methods as experience builds.

This tutorial assumes that the beginner has studied the desktop to some degree and can locate most of the tools. Since there are endless desktop configurations that can be set up in TurboCAD the author has opted to illustrate the required tools with the TurboCAD Classic user interface with its Office 2003 theme and the default toolbars in their undocked format.



Please remember that any supplied images and files are for use within the tutorial only and may not be shared or sold to others.

Place all tutorial images in a permanent location on the hard drive.

For those working through the tutorial in pre-V18 versions please note that most of the functions described in the tutorial, as being on the Modify menu, were on the Format menu in previous versions of the program.

Also note that render times are much better in V18 and V19 than one will see if using previous versions of TurboCAD. TurboCAD now uses Multi-Threading for renders and can make use of multiple processors. The author has a fairly new Acer with 6 processors and has enable 5 for rendering. This is looked at as part of the set up further along.

Lastly, the Copy in Place tool has finally been reintroduced into TurboCAD as a permanent tool. Users who don't have this new tool will need to use the Make Copy method. That is to select the object to copy in place, select the Make Copy tool to turn it on, tab into the first field on the Inspector Bar – but don't change anything – and simply press Enter. Select the Make Copy tool again to turn it off.

Additional Setup for Template

Normally within a Textual Creations tutorial the file that is being worked on would be saved at the point above with the tutorial name. However, it has been saved with its current name to ensure that a save has been made before proceeding much further. Other changes will be made now that will become part of the drawing template that can be used as the basis for future drawings. After the tutorial a reader can revisit this file and make additional changes that will better suit person needs.

A temporary object will be placed in the drawing so that it can be zoomed and all users will have the same initial view as part of the template.

Select the Box tool from the 3D Object toolbar.

Left mouse click in the drawing to place the first point of the box. Tab into the Inspector Bar and enter 12 in the Width field, 12 in the Length field and 12 in the Height field. Press Enter.



Press the Space Bar to exit the tool.

Select the box. Tab into the Inspector Bar and enter 0 in the X, Y and Z Position fields. Press Enter.



Select Zoom Extents at the top of the TurboCAD desktop.

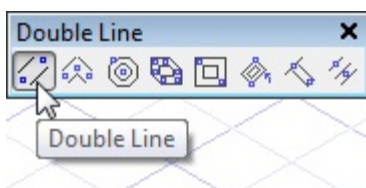


Press Esc to deselect the selection.

This is the point when a user must decide what they want as part of their template, as there are innumerable things that can be taken into account.

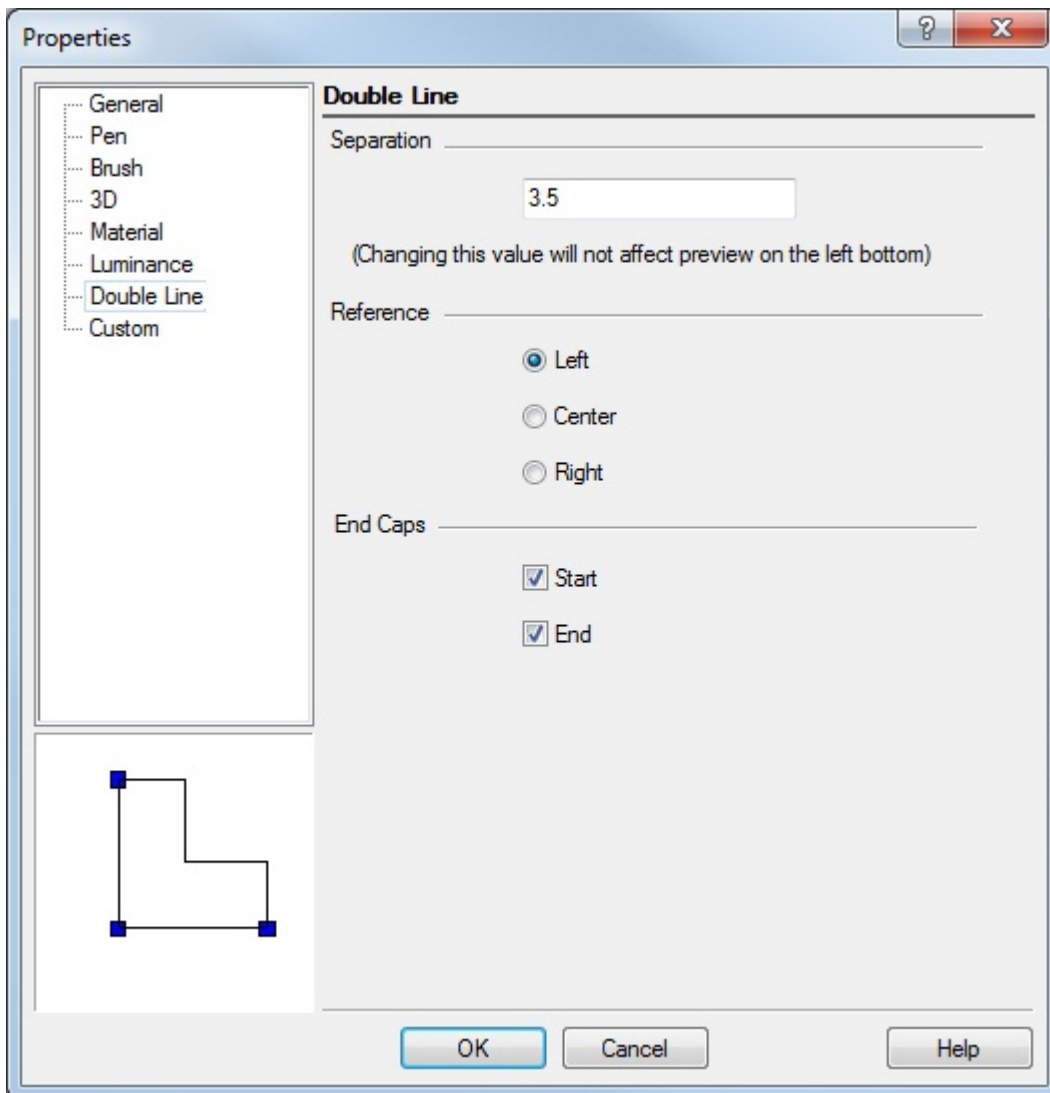
Tool settings are drawing dependant, so they can be changed. Several will be changed now.

Select the Double Line tool from the Double Line toolbar.



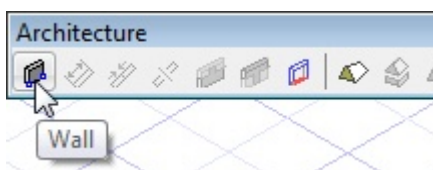
Right mouse click over the Double Line tool icon to open the Properties dialogue for the tool. The tool does not need to be selected to open the Properties dialogue, but sometimes it may need to be selected in order to make the icon available, say from a fly-out menu.

Under the Double Line tab, enter a Separation of 3.5, select Left Reference and check both End Caps. Keep in mind that a user will input data that they generally find most useful for their own purposes. And a user can change on the run as they work, but this will be the setting for any new drawing started from the user template. Click OK.



Press the Space Bar to exit the tool if it is engaged.

Right mouse click over the Wall tool icon on the Architecture toolbar to open the Properties dialogue for the tool.



Under the Wall tab, enter Thickness of 3.5, a Height of 96, select Left Reference and check Show Miter. Click OK (see image on next page).

Remember that colors, layers and so forth can be set as desired under the various tabs while adjustments are made to the tools so that they are set to meet all kinds of drafting standards.

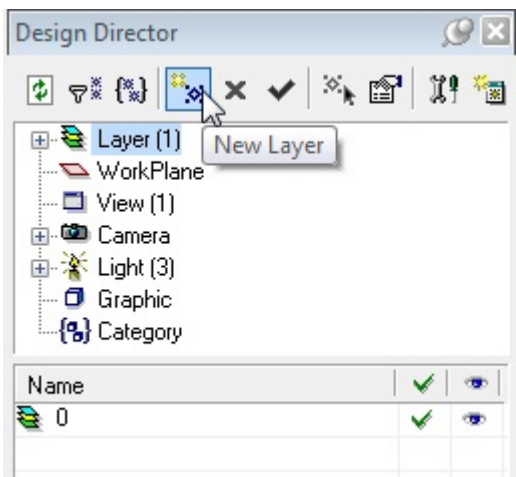
Other tools could be gone through in the same manner as above to better suit personal needs, but this will be all for now within the tutorial. However, other things will be looked at as well to further enhance the template.

Press the Space Bar to exit any tool that may be engaged.

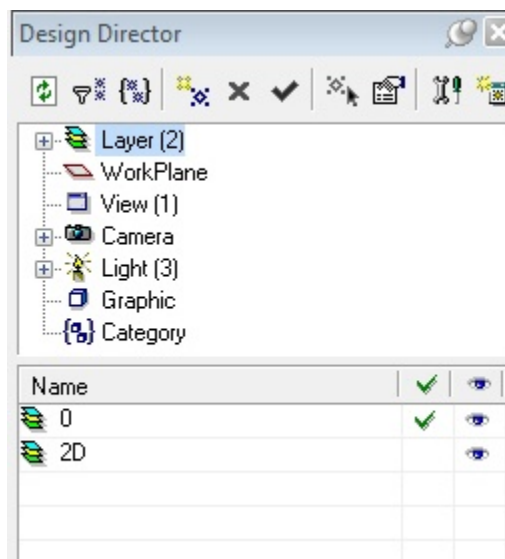
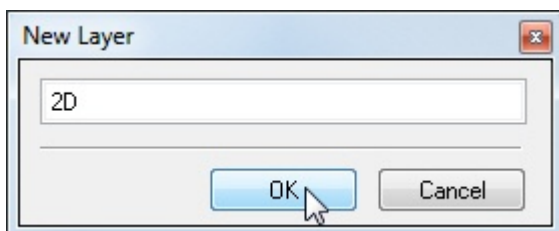
Other things such as layers can be created as part of the template. The author always creates a 2D layer in all drawings to place the various profiles that are used to create 3D objects, so this will be done now. As errors and changes are unavoidable during the drawing process, keeping the 2D profiles ensures that everything need not be recreated from scratch when such issues arise. All kinds of preexisting layers can be created, such as Dimensions, Plumbing, Electrical and so forth, but only 2D will be created for the current template.

Open the Design Director palette.

Select the New Layer icon at the top off the Design Director palette to create a new layer.

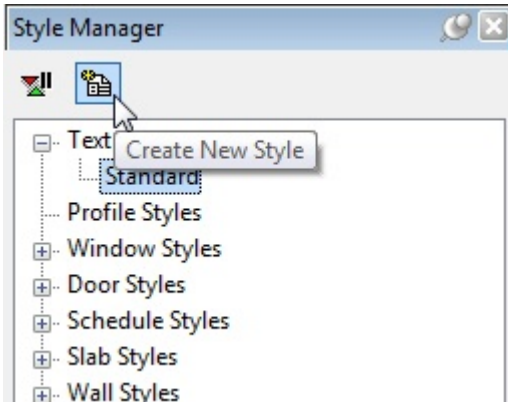


Type 2D in the New Layer name field and click OK or press Enter.



Another area where some pre-thought can be of great value is in regards to Styles. Many Styles can be created via the Style Manager and once created they can be easily selected for use in all drawings, as long as they are part of the template. Two methods will be looked at – one will be created from scratch and the other will be created by copying from an existing file that has been supplied.

Open the Style Manager palette and expand Text Styles. Select Standard. Disengage Delay Style Modifications. If need be, and then select the Create New Style icon at the top of the palette.



It has been decided that this style will be for a product name.

Type Branding in the style name field and click OK.



This is now the active style on the palette.

Drag the Style Manager palette wider if desired and then drag the columns wider.

Property	Value
Font	Times New Roman
Height	0.25 in
Oblique Angle	0
Style	Regular
Width Factor	1
Effects	

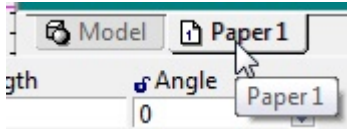
Left mouse click in the Font Value field and select Microsoft Sans Serif from the Font list. Enter a Height of 1.5 in. Press Enter. Select Bold Italic Style and set a Width Factor of 0.5. (Effects has only "Backwards" to choose from).

Paper Space – ANSI Size A

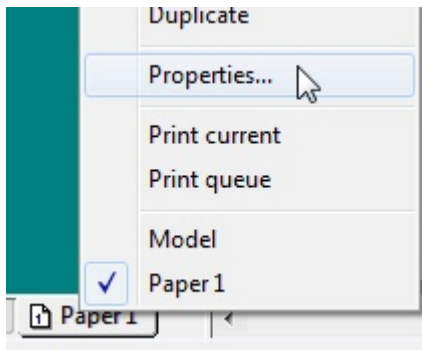
Paper Space can also be set up with a title block, or whatever else is needed.

The format for an A Size (8.5 x 11") sheet will be now created.

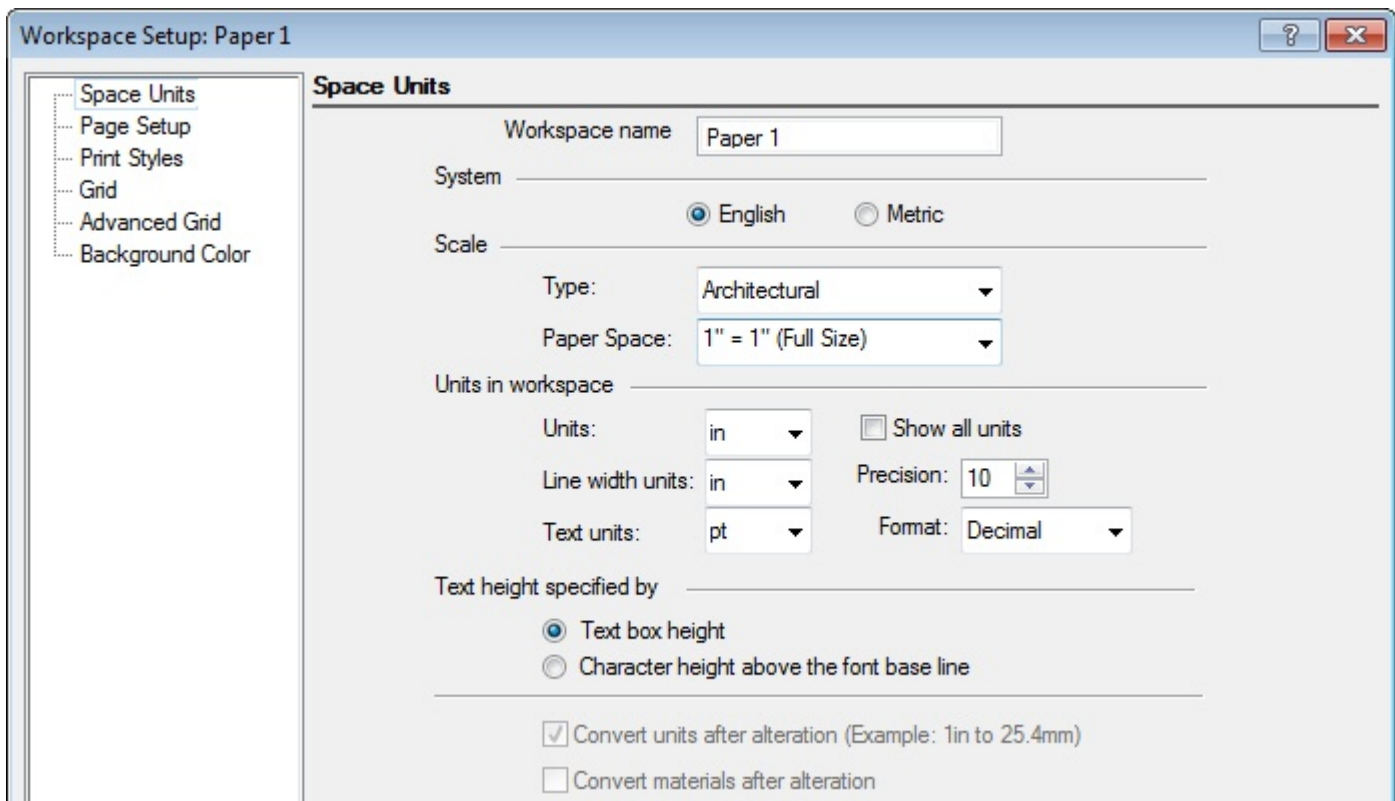
Select the Paper 1 tab at the bottom of the drawing area.



Right mouse click on the Paper 1 tab and select Properties from the local menu.



Establish the Space Units settings as indicated in the picture below.



Establish the Page Setup settings as indicated in the picture below. The author has selected a 3rd party PDF printer.

The reader should use their personal or company name in place of Textual Creations.

Proprietary and Confidential

The information contained in this drawing is the sole property of **Textual Creations** Copyright 2012.

Any reproduction in part or as a whole without the written permission of **Textual Creations** is prohibited.

	NAME:	DATE:
DESIGN BY:	-	-
DRAWN BY:	-	-
CHECKED BY:	-	-
APPROVED BY:	-	-
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TEXTUAL CREATIONS COPYRIGHT 2012. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TEXTUAL CREATIONS IS PROHIBITED.		

Moving on to the right hand section. Double click each of the text objects, as needed and change the text to read what is illustrated in the image below. Also change the sizes as indicated.

-Dash below Title (16 pt)

-A (22 pt)

-Dash below Drawing No (16 pt)

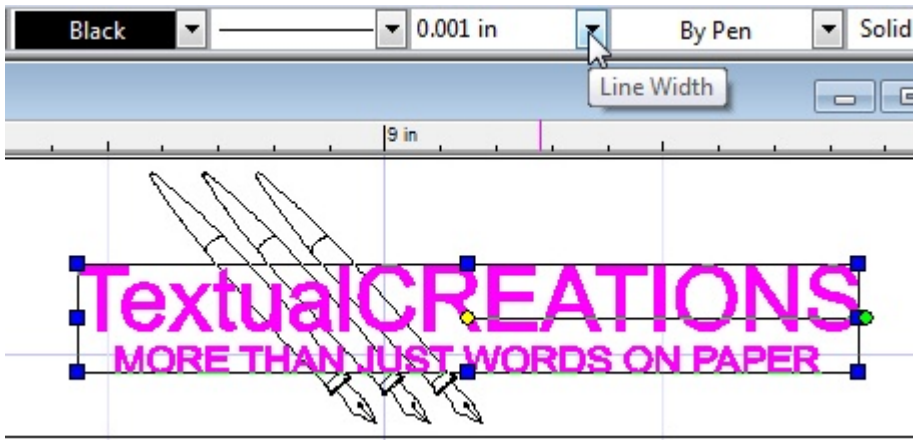
-Dash below Rev: (22 pt)


-Text that was not mentioned is the same size as created (11 pt)

TITLE:		
-		
SIZE:	DRAWING NO.	REV:
A	-	-
SCALE 1:1	WG:	SHEET 1 OF 1

As for the logo (not supplied), the author has found that using a vector version works best, especially if converting drawings to dwg or dxf to share with collaborators or suppliers that need these formats.

It can be E SEKE snapped to the upper right rectangle. The author found that the line thickness set up at the beginning of this tutorial was too thick for the final hardcopy print, so the text-like components were selected and were assigned a line thickness of 0.001 inches.



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE THICKNESS OF PLATING TOLERANCES.			NAME:	DATE:				
TOLERANCES ON:			DESIGN BY:	-				-
BASIC DIMENSIONS	2 PLACE DECIMALS	3 PLACE DECIMALS	DRAWN BY:	-	-	TITLE:		
UP TO 6	± .02	± .005	CHECKED BY:	-	-	-		
6 TO 24	± .03	± .010	APPROVED BY:	-	-	-		
ABOVE 24	± .06	± .015	ANGULAR DIMENSIONS ± 0.5°			SIZE:	DRAWING NO.	REV:
MATERIAL:			PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TEXTUAL CREATIONS COPYRIGHT © 2012. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TEXTUAL CREATIONS IS PROHIBITED.			A	-	-
FINISH:						SCALE 1:1	WG:	SHEET 1 OF 1

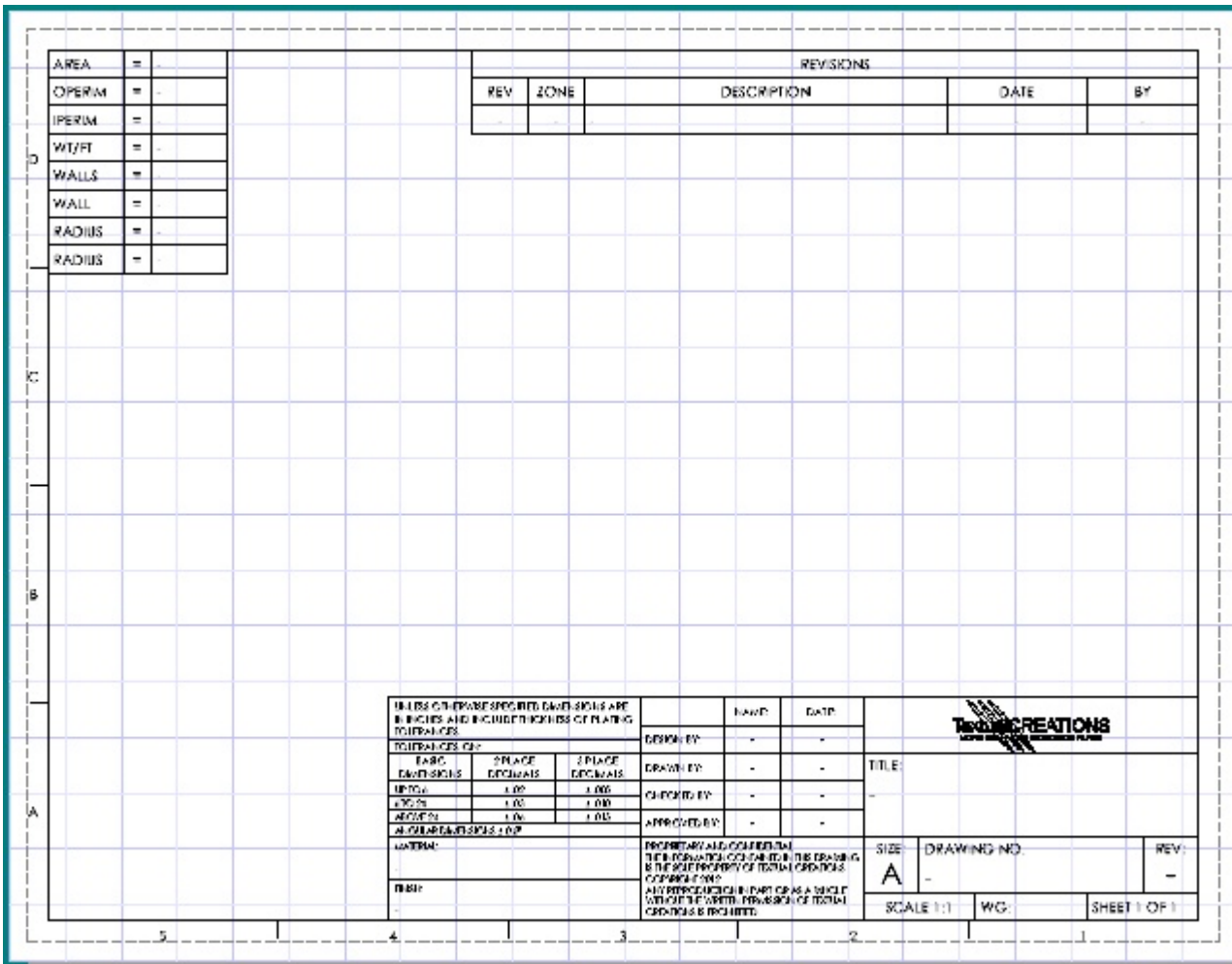
This is a comparison printed to PDF. It looks even better when printed to paper. Final copy is in the logo box above title.



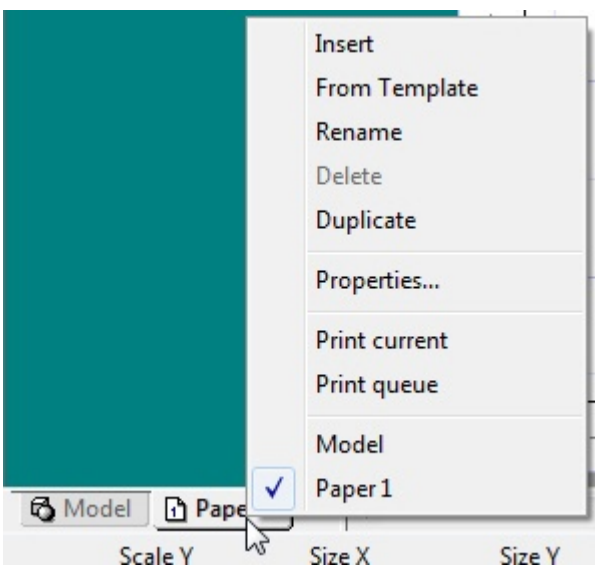
The Revision section of the Title Block will now be created.

Select the Rectangle tool from the Line toolbar.

Select Zoom Full View.



Right mouse click on the Paper 1 tab and note that Duplicate (and other functions) can be selected when additional sheets are required during future projects. Press Esc to release without selection.



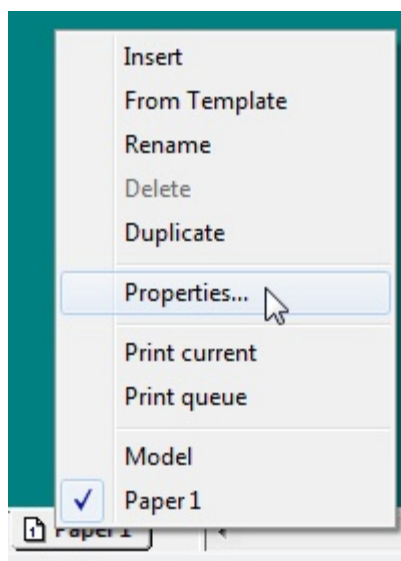
It might be useful to assign the paper elements as they are now to a new layer called Format.

Press Ctrl + A to select all elements.

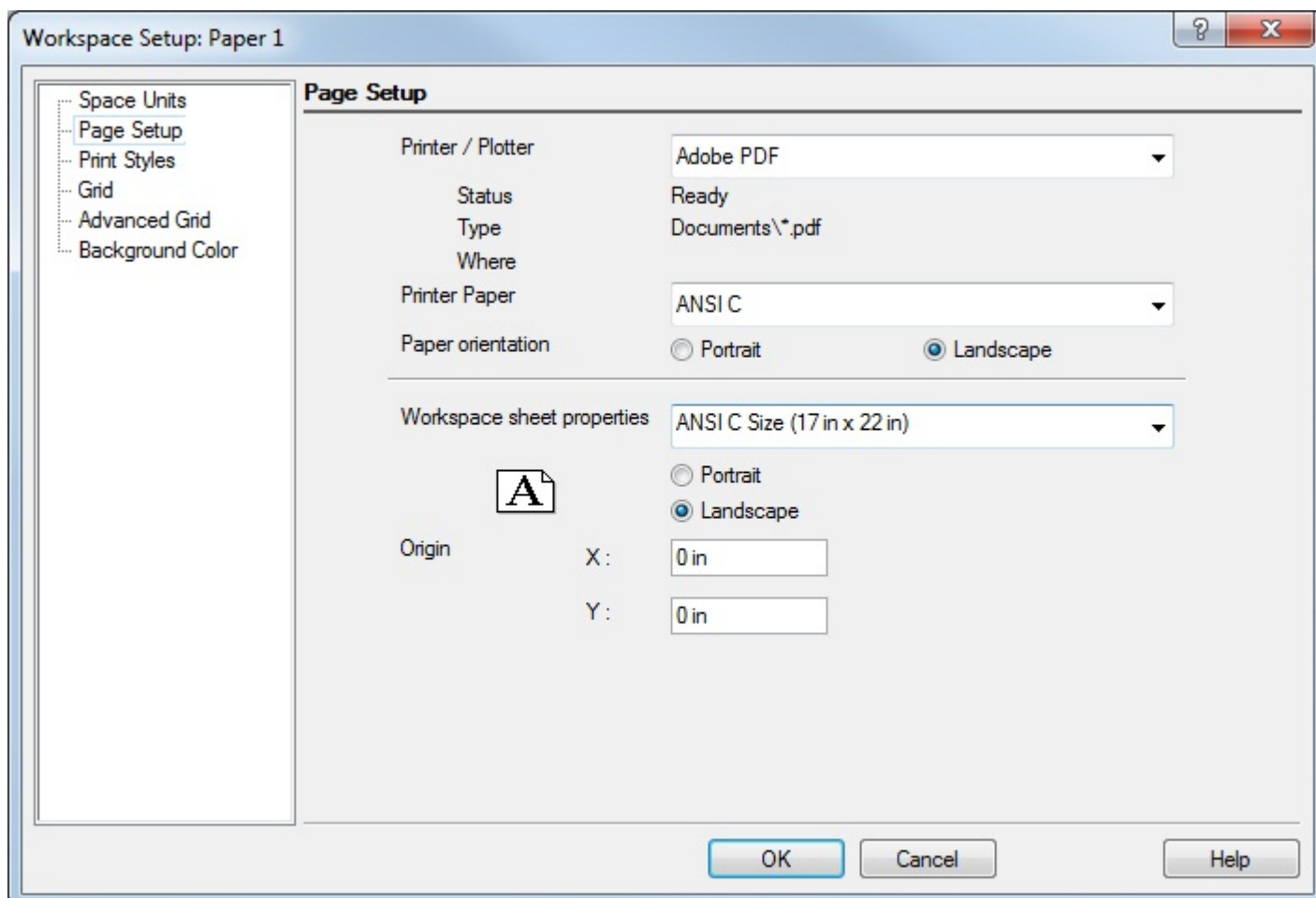
ANSI Size C

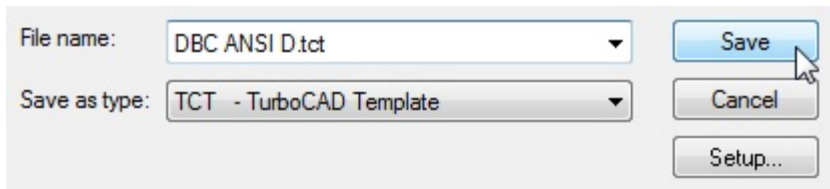
Select the **Paper 1** tab at the bottom of the TurboCAD desktop.

Right mouse click on the **Paper 1** tab and select **Properties**.

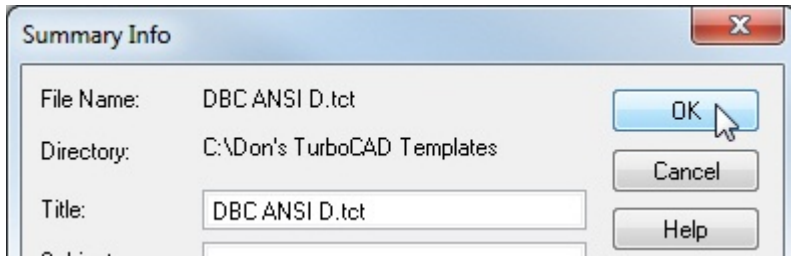


Under the **Page Setup** tab, establish the settings, as indicated in the picture below. Click **OK**.



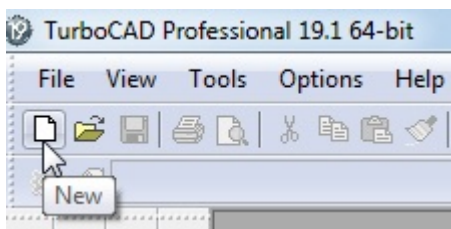


Swap the C for a D and then click OK.



Close the current drawing.

Select the New drawing icon at the top of the TurboCAD desktop.



The New from Template dialogue opens and the user can now select the desired drawing template to start with, based on the templates that were just previously created. Double click the A size to open it.

