CREATING A CUSTOM SMART TITLE BLOCK

Vectorworks tutorial by Andy Broomell ▪ *Updated Nov. 2015* ▪ *Questions:* andybroomell@gmail.com

INTRODUCTION

- This tutorial provides instructions on creating a custom title block which can easily be added to your drafting plates.

- Some pieces of text will be "smart", meaning the text it displays can be variable (either typed in or pulled from the Sheet Layer on which it's placed).

- There are four main steps to setting up a smart title block:

  1. **Drafting** the title block and making it a **Symbol**.

  2. Creating a custom **Record Format** (or collection of fields).

  3. **Linking** the Record Format Fields to the Text objects within the Symbol.

  4. Attaching the title block to a **Sheet Border** object on a Sheet Layer.

DOCUMENT SETUP

- Before starting this project, make sure that **Automatic Drawing Coordination** is turned on in your document:

  1. Click on the Quick Preferences flyout on the right-hand side of the toolbar near the top of the screen.

  2. Select 'Document Preferences…'

  3. In the Display tab, make sure that 'Use Automatic Drawing Coordination' is checked.
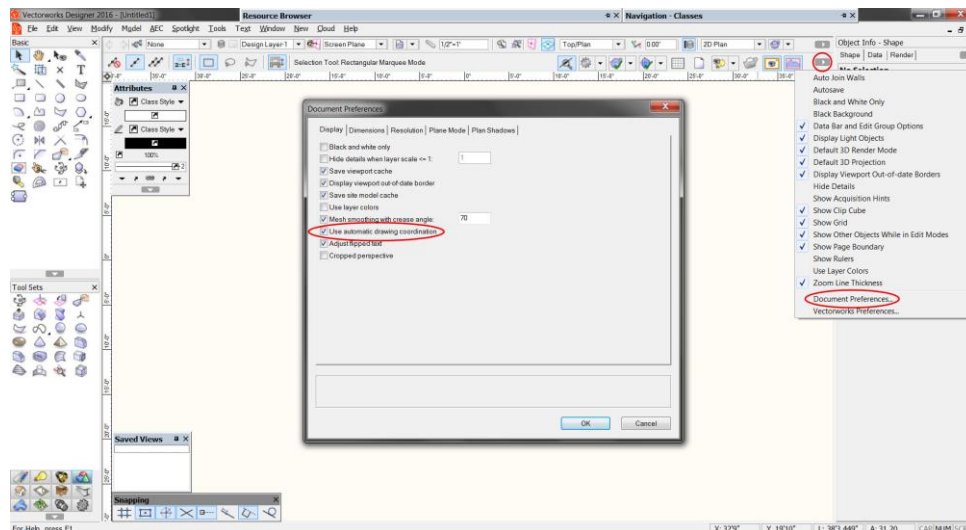
Automatic Drawing Coordination is a setting that allows Vectorworks to automatically coordinate the naming of certain elements, such as Sheet Numbers, Sheet Names, and Drawing Titles. Since it's a per-document setting, if you change it in one file it doesn't affect other files. If you make sure that it's on in the template from which you start new projects, you won't have to worry about this step again!

STEP 1: DRAFT THE TITLE BLOCK AND MAKE IT A SYMBOL

- The first step is to "design" your title block. Your title block will vary from the example to the right depending on your field, personal aesthetic, and the functional needs of your title block.

  1. In a new document, create or go to a Sheet Layer that's set up to the size at which you most often print.

  2. Design/draft your title block directly on the Sheet Layer. (Draw reference page margins if desired.

     - For landscape Arch D (24x36") with ½" margins, a strip title block would be drafted within a 23"H rectangle, for example.

     - Compose your title block using 2D objects such rectangles, lines, text (with placeholder words), images, etc.

     - Place all objects on the 'None' class and <u>avoid</u> setting attributes (line-weight, pen color, etc.) to 'Class Style' ▣ .

       - For best results, set your attributes palette to all non-class attributes before you start drafting your title block.

       - If class attributes are used and you later find that your font is unexpectedly changing, select all your text objects and set the Pen Style to 'Solid' rather than 'Class Style'. This will make sure the original appearance is retained.

     - Be aware of text sizes, pen colors, and lineweights. Consider how much room text might take up on different projects.

     - Take note of the Horiz. and Vert. Align settings of Text objects. When a field has text that might vary in length, the text will expand or contract based on this alignment.

  3. Each field that you want to become "smart" needs to be its own individual Text object.

     - *Ex:* **Scale: 1/4" = 1'-0"**

       - 2 pieces of text, since the "Scale:" label never changes, but the scale itself will.

     - *Ex:* **Plate 1 of 5**

       - 4 pieces of text, since the plate number and total number of plates are individual fields that change independently.

  4. Once you've laid out your title block, it needs to be created into a Symbol:

     a. Select all the objects, then go to 'Modify < Create Symbol…'.

     b. Name your Symbol (such as "AEB Title Block D-size").

     c. Make sure 'Insertion Point' is set to 'Next Mouse Click' then click OK.

     d. Set the insertion point to the lower right-hand corner of your title block.

     e. The Symbol is now in your Resource Browser; you will also have an instance of the symbol on your Sheet Layer.

     f. Since the title block will need to be inserted as <u>part of</u> a Sheet Border (see Step 4), you can delete this Symbol instance.

1. Create a new Record Format by double clicking on a blank area in the Resource Browser and selecting 'Record Format'.

   ▪ Name your Record Format. (*eg.* 'AEB Title Block Records')

2. Within the Record Format dialog box, create a new Record Field for each text object that you want to be smart:

   ▪ Click on 'New' and the Edit Field dialog box will pop up.

   ▪ 'Name' is what the field will be labeled later when you double click the title block to enter information. (See Field Name Modifiers below).

   ▪ 'Type' should usually be set to 'Text'.

   ▪ 'Default' is the placeholder text that will show up until you enter specific information into your title block.

      ▪ *Ex: ?/?" = 1'-0"* for scale, or **#** for plate number

   ▪ See example Record Format below. Your fields may differ depending on the functionality of your title block.

3. Field Name Modifiers:

   ▪ Use the **P_** prefix to indicate a "project" field, meaning that you want the field to automatically be the **same on ALL sheets**.

   ▪ Use the **S_** prefix to indicate a "sheet" field, meaning you may want it to be **different from sheet to sheet**.

      ▪ When you use your title block later, the P_ and S_ fields are separated into Project and Sheet tabs (see below).

      ▪ Fields that aren't given a prefix are placed in the General tab (not used in the example).

   ▪ Use the **_SN** suffix for the **Sheet Number**.

      ▪ This will automatically coordinate with the Sheet Number of the Sheet Layer.

      ▪ When you update one it'll automatically update the other.

   ▪ Use the **_SD** suffix for the **Sheet Title**.

      ▪ This makes the Sheet Title in your title block automatically coordinate with the name of the Sheet Layer.

      ▪ When you update one it'll automatically update the other.

   ▪ To create a **multi-line field**, append a **#** (pound sign) to the very end of the field name.

      ▪ By default, fields are only one line.

      ▪ If using a multi-line field, make sure to leave enough room for your text object to expand up-and-down, and be sure to note whether it's expanding from the top, center, or bottom.

Edit Record Format

Name: AEB Title Block Records

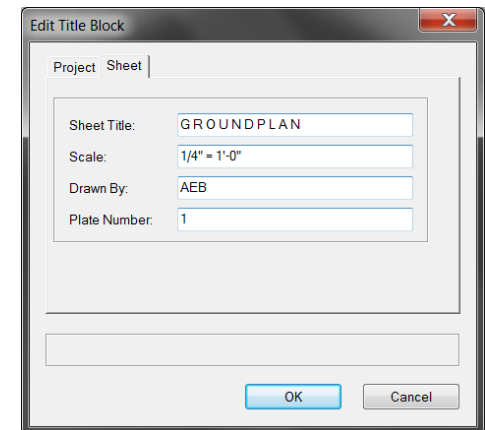| #	Field Name	Type	Default Value
1	P_Name of Project #	Text	Name of Project
2	P_Total Plates	Text	#
3	P_Date of Drawing	Text	XX/XX/XX
4	P_Revision Date	Text	XX/XX/XX
5	S_Sheet Title_SD	Text	SHEET TITLE
6	S_Scale	Text	As Noted
7	S_Drawn By	Text	AEB
8	S_Plate Number_SN	Text	#

New... | Edit... | Remove

OK | Cancel
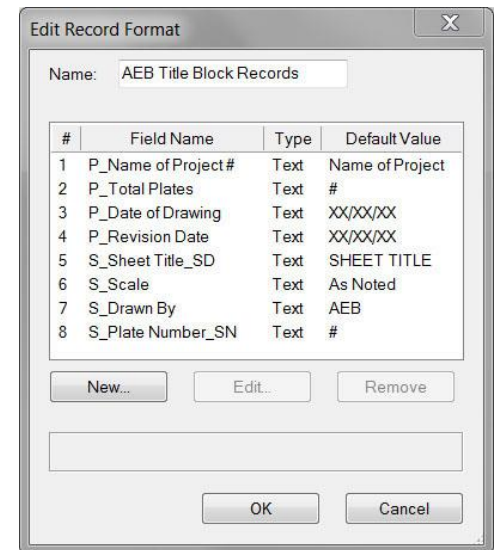
STEP 3: LINK THE FIELDS TO THE TEXT OBJECTS

1. In the Resource Browser find the title block Symbol you made earlier. Right click to Edit the 2D side of the Symbol.

2. Link each of the Record Fields to the associated Text objects within the Symbol:

   a. Select one of the Text objects you want to be 'smart'.

   b. Go to 'Tools < Records < Link Text to Record…' (note the keyboard shortcut).

   c. In the upper list select the Record Format you created; in the lower list select the appropriate Record Field and click OK.

   d. Repeat for each field / text object.

   e. Once all of your fields are linked to text objects, exit the Symbol.

   f. Your title block is ready to use! If you still have a Symbol instance in your drawing area, delete it or move it to the side.
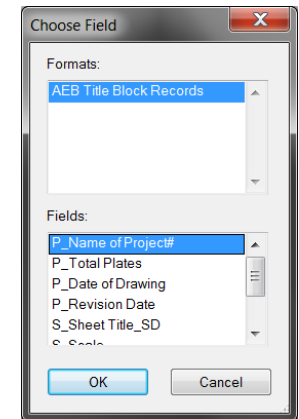
STEP 4: ATTACH THE TITLE BLOCK TO SHEET BORDER

1. Place a Sheet Border Objects ⬚ (in the Dims/Notes tool set ✏️) onto your Sheet Layer.

2. In the Object Info Palette, click on 'Border Settings…' and make sure the Horizontal and Vertical dimensions match your paper size and are the OUTSIDE dimensions. Adjust margins if needed. Click OK.

3. Click on 'Title Block…' to attach your custom title block to the Sheet Border. Navigate to your Symbol and click OK.

   ▪ For a title block to function it needs to be inserted in this way rather than as an instance of the Symbol.

   ▪ Note: Once attached to a Sheet Border, your title block Symbol is automatically moved into a Symbol Folder called "Sheet Border Components". You can go there and edit things in your Symbol at any point.

4. Make sure all your Sheet Border settings are correct on one Sheet Layer, then duplicate this Sheet Layer for additional pages (when you duplicate a Layer it duplicates everything on that Layer as well.)

   ▪ You can also copy and paste Sheet Borders from one Sheet Layer to another.

5. TO USE A TITLE BLOCK: Double click the border/title block to edit fields in the pop-up box (shown at right).

   ▪ If set up correctly, your fields are divided into Project and Sheet tabs, and if you change the Sheet Title or Plate Number it should change the name/number of the Sheet Layer accordingly. Vice verse, if you rename a Sheet Layer or change its Sheet Number, this change will automatically be reflected in that sheet's title block.

   ▪ Double check that everything functions the way you expected it to.

Basic example to show functionality. Your fields may vary.

scenic design by
ANDY BROOMELL

email
andybroomell@gmail.com

call/text
949.310.3606

address
XXXXXXXXXXXX
XXXXXXXXXXXX

Bloody Bloody Andrew Jackson

Director: *Myrona DeLaney*

Scenic Designer: *Andy Broomell*

Production Manager: *Keith Bangs*

Technical Director: *Keith Bangs*

Lighting Designer: *Kristin Neu*

Sound Designer: *Matt Glenn*

Costume Designer: *Kaitlyn Kaufman*

Stage Manager: *Anne Hitt*

Venue: *Claire Trevor Theatre, UCI*

G R O U N D P L A N

Scale: *1/4" = 1'-0"* **Drawn By:** *AEB*
Date of Drawing: *10.14.13*
Revision Date: *10.27.13*

Drawing Schedule:
1. Groundplan
2. Section at CL
3. Front Elevation
4. Wall D (Back Wall)
5. Walls A, B, F, G, J, K, L
6. Walls C, E, H, I, M, N
7. Joists
8. Columns
9. Pit Fill & Stairs
10. Platforms
11. Hanging Goods

FINAL VERSION

THIS DRAWING REPRESENTS VISUAL CONCEPTS
AND CONSTRUCTION SUGGESTIONS ONLY
The designer is unqualified to determine the structural,
electrical appropriateness of this design, and will not assume responsibility
for improper engineering, construction, handling, or use. All materials and
construction must comply with the most stringent applicable Federal and
local Fire, Safety, Energy, and Environmental Codes.

PLATE
1 OF **11**

Editing the finished title block (double click):

Edit Title Block

| Project | Sheet |

Name of Project: Bloody Bloody Andrew Jackson

Total Plates: 11

Date of Drawing: 10.14.13

Revision Date: 10.27.13

☑ Apply these values to all title blocks

OK   Cancel

Example Record Fields:

Edit Record Format

Name: AEB Title Block Records

#	Field Name	Type	Default Value
1	P_Name of Project #	Text	Name of Project
2	P_Total Plates	Text	#
3	P_Date of Drawing	Text	XX/XX/XX
4	P_Revision Date	Text	XX/XX/XX
5	S_Sheet Title_SD	Text	SHEET TITLE
6	S_Scale	Text	As Noted
7	S_Drawn By	Text	AEB
8	S_Plate Number_SN	Text	#

New...   Edit...   Remove

OK   Cancel

Edit Title Block

| Project | Sheet |

Sheet Title: GROUNDPLAN

Scale: 1/4" = 1'-0"

Drawn By: AEB

Plate Number: 1

OK   Cancel

Sheet Layers:

Navigation - Sheet Layers

S...	Sheet Title	/
1	Groundplan	1
2	Section at CL	2
3	Front Elevation	3
4	Wall D (Back Wall)	4
5	Walls A, B, F, G, J, K, L	5
6	Walls C, E, H, I, M, N	6
7	Joists	7
8	Columns	8
9	Pit Fill & Stairs	9
10	Platforms	10
11	Hanging Goods	11