

Bentleyuser.dk annual meeting 2012

Administering Dynamic Views

Customizing drawing seeds

Creating a custom drawing seed library

Creating a drawing seed

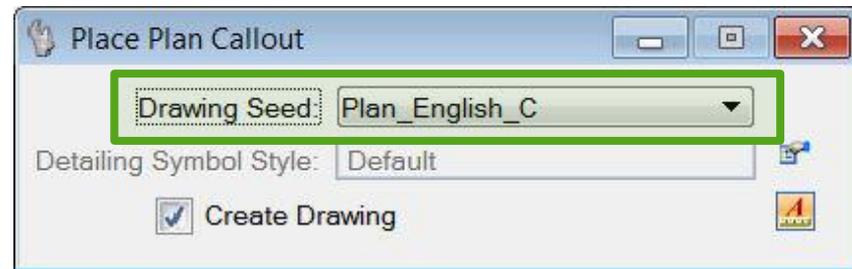
Customizing detailing symbol styles

Creating a detailing symbol style

Customizing drawing seeds

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- ❖ When using a Place Callout tool to create a plan, section, elevation, or detail view, you first have to select a drawing seed.



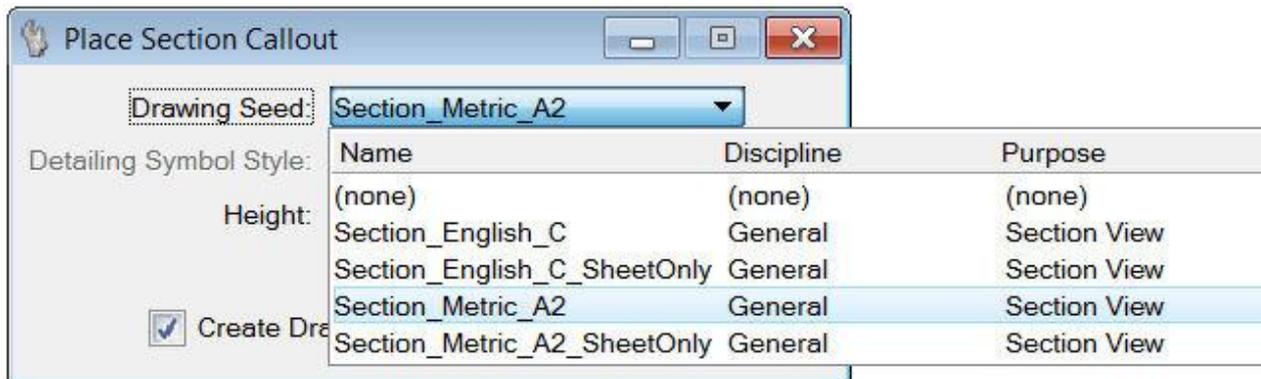
- ❖ A drawing seed:
 - Is a template that is used to automate dynamic views in a project.
 - Defines most of the settings and properties that are used when placing a callout and automating dynamic views.
 - Controls the *seed models* used for the automatic creation of the drawing and/or the sheet model, the *detailing symbol style* used for the callout, the *reference attachment settings*, the *view attributes*, and the *display styles* used for the clip volume areas.
 - Determines if you can create a sheet model without creating a drawing model, when automating dynamic views.

Customizing drawing seeds

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❖ Drawing seed library *DrawingSeed.dgnlib*:

- Delivered in `\Workspace\System\dgnlib\`.
- Contains example drawing seeds in metric and English units, for specific sheet sizes.
- The drawing seeds whose names end with *_SheetOnly* allow you to create only a sheet model, without creating a drawing model.



Creating a custom drawing seed library

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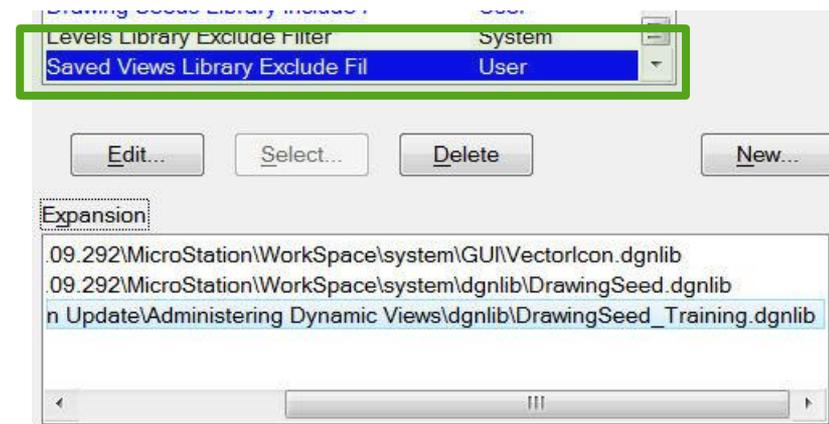
- ❖ Creating a custom drawing seed library:
 - A CAD administrator can deliver a list of drawing seeds in a DGN library, one for each combination of discipline and purpose.

- ❖ How to create and configure a custom drawing seed library:
 1. Copy the delivered drawing seed library *DrawingSeed.dgnlib* (in `\Workspace\System\dgnlib\`) to the `\dgnlib\` folder of a specific project and rename it.
Ensure that the project's `\dgnlib\` folder is set in the MS_DGNLIBLIST configuration variable.
 2. Customize the copied drawing seed library.
Do not rename the existing models.
 3. Add the customized drawing seed library file to the **MS_DRAWINGSEED_LIBLIST** configuration variable.

Creating a custom drawing seed library

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- ❖ How to exclude the saved views in drawing seed libraries from the Saved Views dialog:
 - A new configuration variable has been introduced: **MS_SAVEDVIEW_EXCLUDELIBS**.
 - Set this variable to point to the drawing seed library files.



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Purpose of this Exercise

You will configure a copy of the original drawing seed library.
The copy will be customized in the following exercises.

Practice Exercises

Complete the following practice exercise(s).

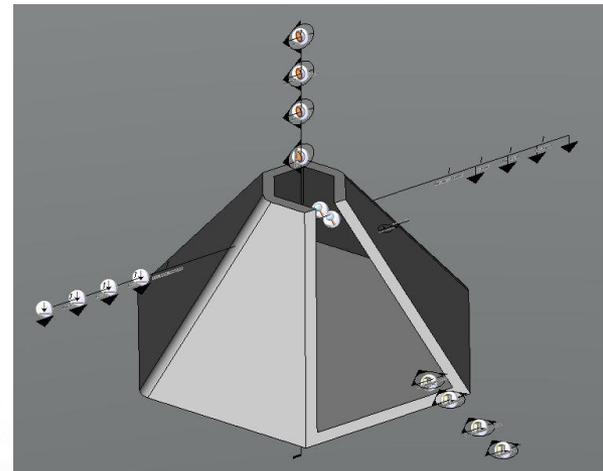
- Configure a custom drawing seed library

Creating a drawing seed

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❖ A drawing seed:

- Is not only specified by a saved view.
- Is a complete drawing chain: *3D model* + *saved view* + *drawing model* + *drawing reference* + *sheet model* + *sheet reference* + *callout*.
- All these components are necessary because many properties may need to be customized.
- Every component defines the corresponding properties.
- If the chain is not complete, the drawing seed will not show up in the drawing seed drop-down menu.



Creating a drawing seed

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- ❖ A saved view in a DGN library is treated as a valid drawing seed saved view, if:
 - It is created in a DGN library file that is pointed to by the MS_DGNLIBLIST configuration variable.
 - It has a link pointing to a valid reference in a drawing model, or a valid drawing title in a sheet model, or both, and the models are in the same file.
 - Each drawing model and sheet model in the drawing seed library contains a reference attachment to only one drawing seed saved view.
 - It has a detailing symbol style.

Creating a drawing seed

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- ❖ To create a new drawing seed:
 - Use the exact approach you would use to add a callout with automated dynamic views to your project.

- ❖ For example, to add a new section drawing seed to a drawing seed library:
 - Select **Place Section Callout** with *Create Drawing* enabled.
 - Create a section saved view with a drawing model and/or a sheet model.
 - The properties of the drawing seed's saved view and of the other components will be used when you select the drawing seed while automating dynamic views in your project.

- ❖ In fact, the content of a drawing seed library is identical to the models and drawings you create in your project.
 - Think of the drawing seed library as a mini-project. A CAD administrator can edit it the same way a user does.

Purpose of this Exercise

After reviewing the delivered drawing seed library, you will create a new section drawing seed, customize some of its properties, and then use it to create a section view.

Practice Exercises

Complete the following practice exercise(s).

- **Explore the contents of the drawing seed library**
- **Create a new drawing seed**
- Customize the properties of the drawing seed components
- **Create a section view using the new drawing seed**

Purpose of this Exercise

You will create a 'sheet only' drawing seed and use it to create another section view and place it directly on a sheet.

Practice Exercises

Complete the following practice exercise(s).

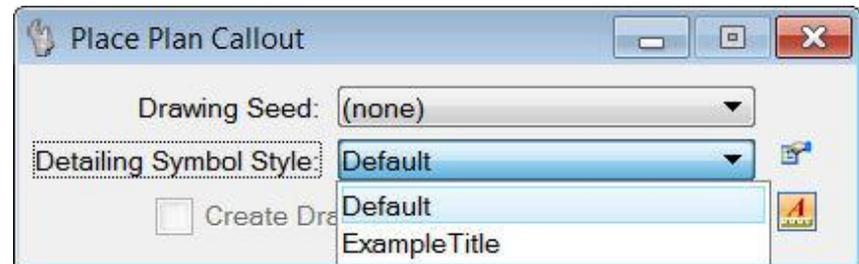
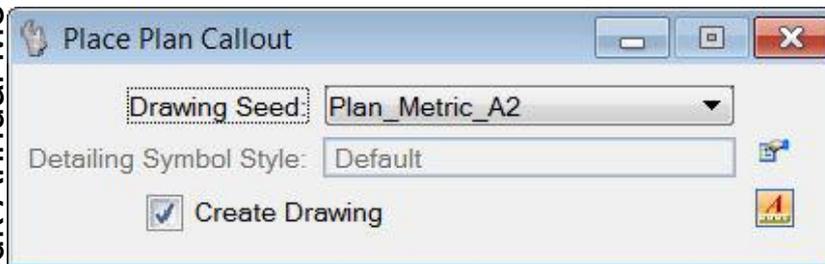
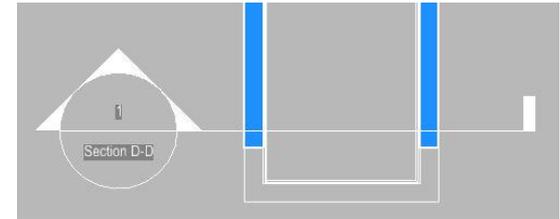
- Create a new 'sheet only' drawing seed
- Create a section view using the new 'sheet only' drawing seed

Customizing Detailing Symbol Styles

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❖ Detailing symbol style:

- Determines how a callout placed with one of the Place Callout tools will look.
- Is generally set by the drawing seed.
- Only if you set the Drawing Seed option to *(none)*, a detailing symbol style can be selected.



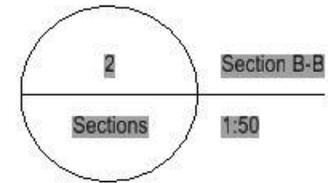
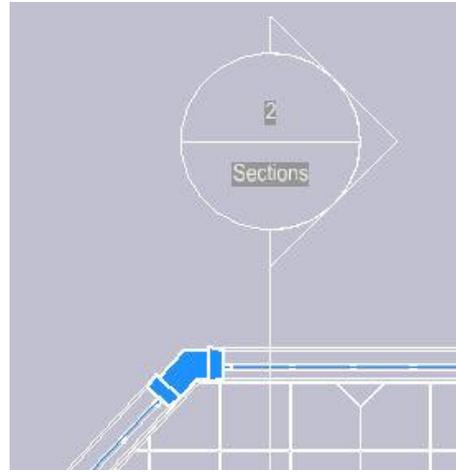
Note: When you select no drawing seed, the Create Drawing dialog will not open and you can not create a saved view or automate dynamic views. Only a callout with an associated clip volume is created.

Customizing Detailing Symbol Styles

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❖ Detailing symbol style:

- Also determines how the drawing title will look.



A section callout in a drawing model and the associated drawing title placed in a sheet model.

❖ Drawing title:

- Is generated when a saved view created with one of the Place Callout tools is attached to a sheet model.
- Describes the view on the sheet.
- When the drawing title is placed, a link is established between the drawing title and the corresponding callout. Both contain placeholder fields.
- The placeholder fields in the callout evaluate and display the corresponding property values of the drawing title.

Note: When a saved view is attached to a design or drawing model, the option to create a drawing title is disabled.

Customizing Detailing Symbol Styles

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❖ Detailing symbol styles:

- Allow a CAD administrator to define custom standards for callouts and drawing titles by defining *symbology settings*, *cells*, and *placeholder fields*.
- Are by default delivered in the DGN library *DrawingSeed.dgnlib* in the folder `\Workspace\System\dgnlib\` (together with the drawing seeds).
- To customize detailing symbol styles and drawing seeds, a CAD administrator usually copies this DGN library file to the `\dgnlib\` folder of a specific project.

Note: How to do this is described in the section 'Creating a custom drawing seed library'.

Creating a Detailing Symbol Style

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❖ The delivered *DrawingSeed.dgnlib* contains:

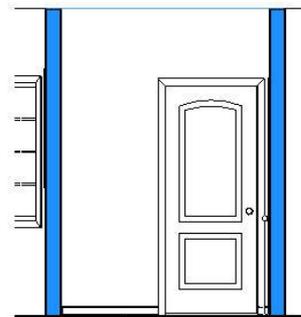
- One detailing symbol style Default.
- A number of 2D design models (cells) that define the components of a callout or drawing title.

❖ A detailing symbol style:

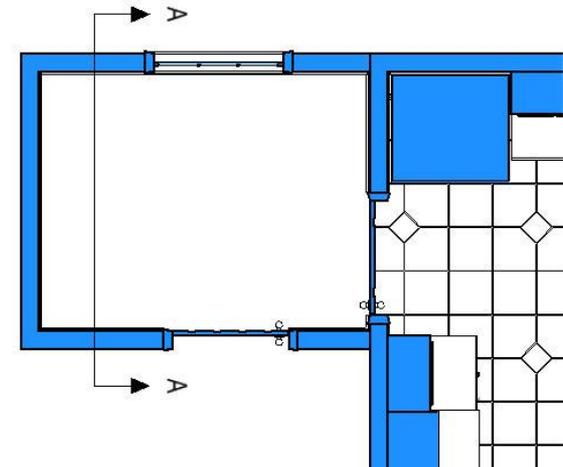
- Uses certain cells as bubbles in the callouts and the drawing titles.
- These cells can be replaced by others to create a completely different look.

<input checked="" type="checkbox"/>	SectionLineWing
<input checked="" type="checkbox"/>	SectionArrowWing
<input checked="" type="checkbox"/>	ElevationBubble
<input checked="" type="checkbox"/>	SectionBubble
<input checked="" type="checkbox"/>	DrawingTitleBubble
<input checked="" type="checkbox"/>	DetailBubble
<input checked="" type="checkbox"/>	ElevationWing
<input checked="" type="checkbox"/>	TitleText
<input checked="" type="checkbox"/>	PlanBubble
<input checked="" type="checkbox"/>	PlanMainWing
<input checked="" type="checkbox"/>	PlanTailBubble
<input checked="" type="checkbox"/>	PlanTailWing
<input type="checkbox"/>	InteriorElevationCap
<input type="checkbox"/>	InteriorElevationBubble

For example, in many European countries a section callout may look like this.



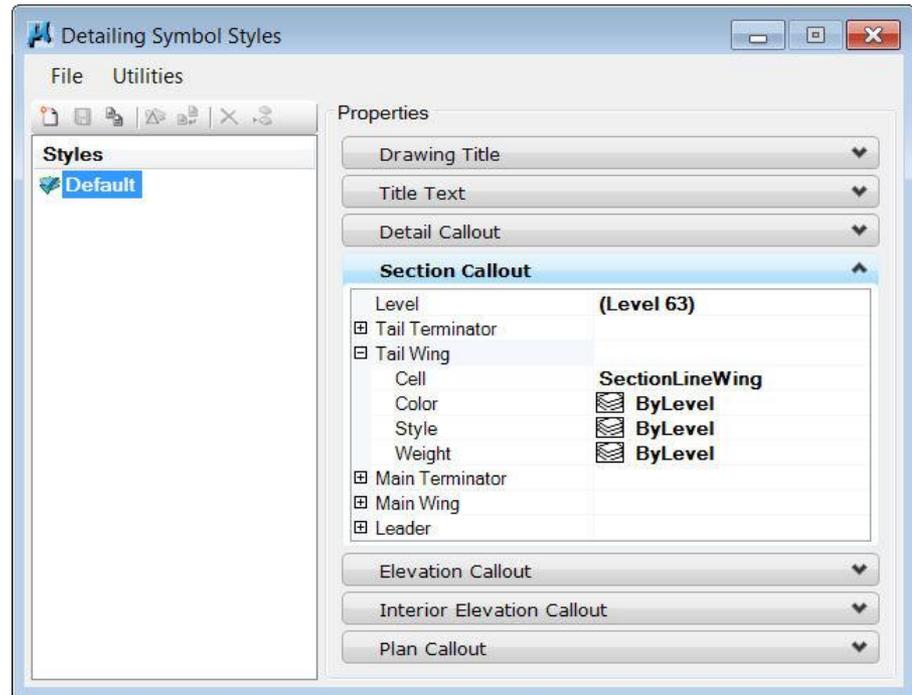
Section A
Scale 1:25



Creating a Detailing Symbol Style

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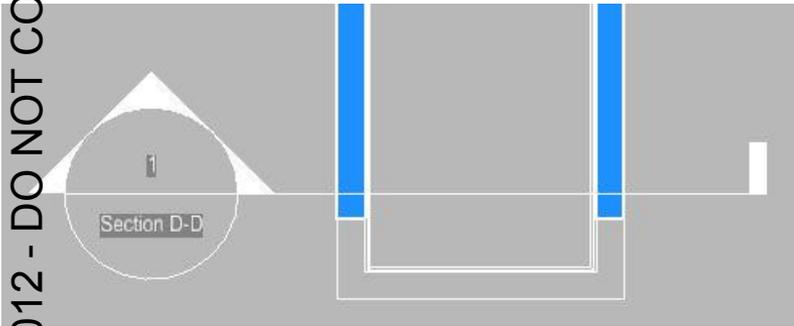
- ❖ How to create a detailing symbol style:
 - Open your drawing seed library.
 - Select *Element > Detailing Symbol Styles* to open the Detailing Symbol Styles dialog.
 - The dialog contains panels to define the drawing title and the different callout types.



Creating a Detailing Symbol Style

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Properties	
Drawing Title	▼
Title Text	▼
Interior Elevation Callout	▼
Detail Callout	▼
Section Callout	▲
Level	(Default)
Tail Terminator	
Tail Wing	
Cell	SectionLineWing
Color	▨ ByLevel
Style	▨ ByLevel
Weight	▨ ByLevel
Main Terminator	
Main Wing	
Leader	
Elevation Callout	▼
Plan Callout	▼

- The drawing title and each callout type is composed of several components. For example, a section callout consists of a tail terminator, a tail wing, a main terminator, a main wing, and a leader.
- For each component you can select the cell that is used as bubble (or leave it empty, if allowed) and set the symbology.
- The cells contain placeholder fields that are evaluated when the appropriate link is added to the detailing symbol.

Creating a Detailing Symbol Style

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❖ Cells in detailing symbol styles:

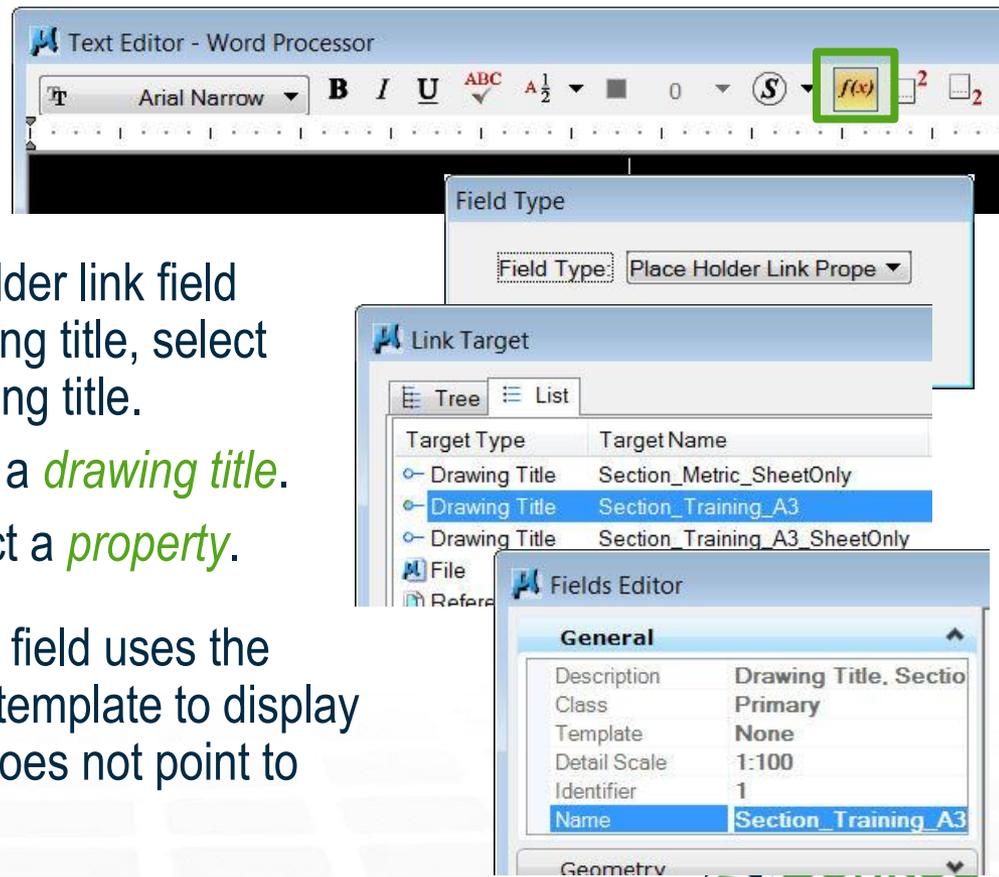
- The list of cells is populated from the annotation models in *DrawingSeed.dgnlib* and in other DGN libraries defined by MS_DRAWINGSEED_LIBLIST.
- To provide custom cells you can set the **MS_DETAILINGSYMBOLS_CELLLIST** configuration variable to the location of your DGN library or cell file.
- Detailing symbol cells must be annotation cells.
- The Cell property of a component can be kept blank, except in some cases. For example, in a drawing title, you can not keep the Cell property of the Title component blank. It will make the style invalid.

Creating a Detailing Symbol Style

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- ❖ How to create placeholder fields in custom cells:
 - Set the MS_DETAILINGSYMBOLS_CELLLIST configuration variable to the location of your DGN library or cell file.
 - Select the Place Text tool.
 - Click the **Insert Field** icon and select the *Place Holder Link Properties* field type.
 - If you want to create a place holder link field pointing to a property of a drawing title, select a *DGN file* that contains a drawing title.
 - In the Link Target dialog, select a *drawing title*.
 - In the Fields Editor dialog, select a *property*.

Note: Note that the placeholder field uses the selected drawing title only as a template to display properties. After it is placed, it does not point to that drawing title.



Purpose of this Exercise

You will create a custom detailing symbol cell and use it in a new detailing symbol style.

Practice Exercises

Complete the following practice exercise(s).

- **Create a detailing symbol cell**
- Create a custom detailing symbol style

Purpose of this Exercise

You will modify the custom detailing symbol style and include it in the custom drawing seeds you created earlier. In addition, you will customize the drawing title.

Practice Exercises

Complete the following practice exercise(s).

- Include a detailing symbol style in a drawing seed
- **Create a custom drawing title**