

Tips and Tricks for Roadway Designer

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Template Tips

- Templates are the real power behind the Roadway Designer, so we are going to start with Template Tips.
- The “smarter” a template, the less work that needs to be done in Roadway Designer.
- Even complex templates can be elegant and simple to use.

But BEWARE of the....

FRANKEN-TEMPLATE!!!

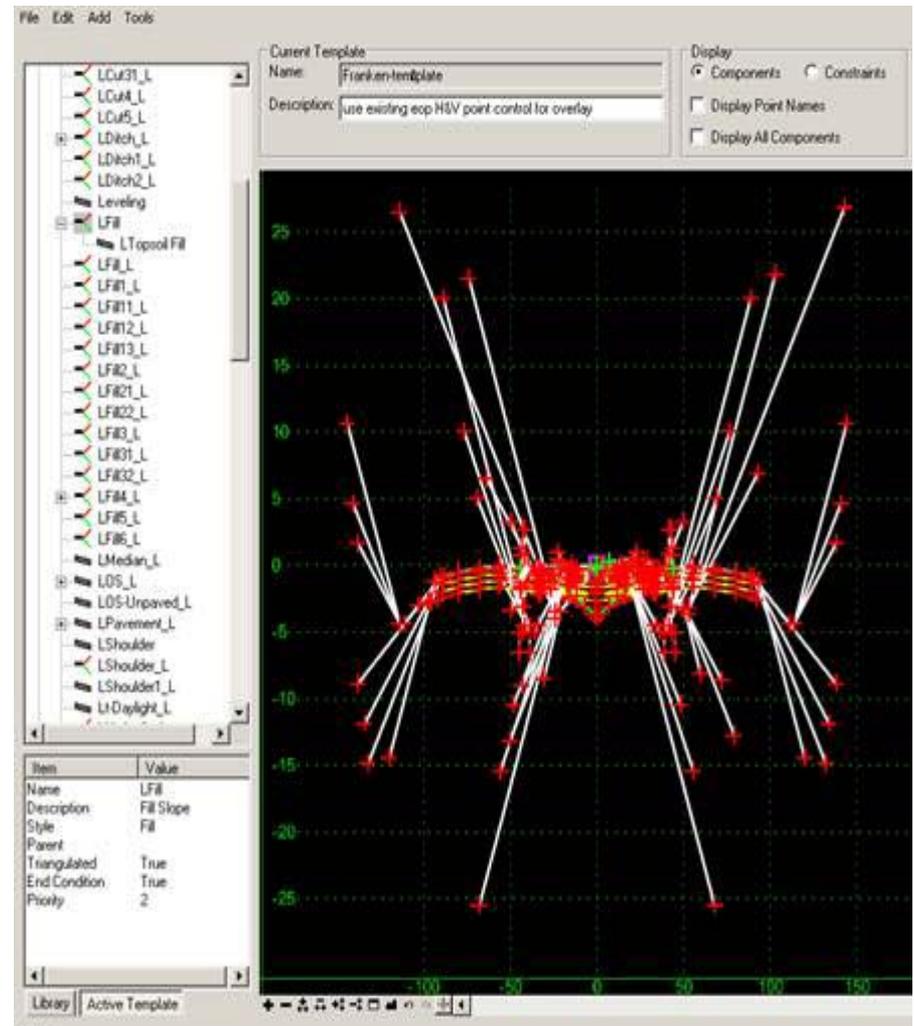
Franken-tem·plate

-noun

/ Spelled Pronunciation [**Frank**-in **tem**-plit]

A typical roadway section consisting of an unheard of number of components, null points and end conditions as well as unnecessary display rules including double negative display rules and rules that exist only because the template was copied multiple times. Be aware of this type of template as opening such a template will oftentimes literally eat the individual alive.

Sentence: Bob sent me this Franken-template to look at, but I can't understand what exactly he was trying to do so I just rebuilt it for him from scratch.



Good Template creation practices

- Having a robust Point list will make creating templates much easier
- Use Parametric Constraints to reduce the need for many templates
- When building templates, think about how it is going to be used in a project, and constrain it appropriately
- Before setting up a Display Rule, make sure an End Condition or Parents wouldn't be more appropriate
 - End Conditions are easier to manage and test
 - Display Rules should be limited to backbone changes due to external controls

Good Template creation practices

- Be VERY CAREFUL when using Display Rules with End Conditions
 - An End Condition will attempt to solve even if it is not displayed.
- Use meaningful names for Display Rules. Don't just accept "Rule1", "Rule2", etc.
- When creating End Conditions...

Test... Test... **TEST!!**

Good Template creation practices

- Document your templates
 - Create Documentation for your templates using a company standard and associate that documentation to each template using the “Documentation Link”

Creating Components

- Dynamic Settings
 - Provides grid snaps. Makes creating and editing easier
- Just Draw It!
 - After you draw it then set the constraints using edit points or right-click to set constraints.
- Use existing components and modify them
 - You get the point names
 - You get the constraints
 - You get the component names
 - You get the parametric labels

Point Naming

- Common Points Common Name
 - Transitioning
 - Resulting Components
 - Less Editing

Did you know?

- When placing a constrained, overlay/stripping, or end condition component, using precision key ins DL=, HS=, or VS= will result in constraints that match the keyed in values

Did you know? – oldies, but goodies

- You can change the drag point for a template by left clicking over the point you want to be the new drag point in the preview window
- While zooming in/out with the mouse wheel, holding down CTRL will zoom only in the X-direction, and holding down SHIFT will only zoom in the Y-direction
- You can pan by clicking and holding down the mouse wheel.
- Dragging and dropping a template onto itself will duplicate what is there
 - Useful for manual benching or quick mirroring

Roadway Designer Tips

- Surface Symbology has been added as a property of a Corridor
 - Allows differentiation of corridors in multi corridor interactions in cross section view
- You can now completely manage backbone transitions
 - delete/add transitions between any two template drops (to add right click second transition)

Roadway Designer Tips

- Don't over clutter your views with display references.
 - While display references are very useful, displaying too many can affect performance
 - Display them when you need them to make sure things work okay, but once you are done, turn them off
- A point's coordinates are determined in this order (Highest first)
 1. Point Controls
 2. Style Constraint
 3. Point Constraint
 4. Coordinates where placed in template

Roadway Designer Tips

- Point controls work by replacing the constraint that most closely matches the point control.

Eg. If a point has a horizontal and slope constraint, a vertical control will replace the slope constraint, but if the point had a vertical constraint and a slope constraint, the vertical control would replace the vertical constraint. In the event that the constraints are the same (slope-slope for instance), the second constraint will be replaced.

Re-Using Templates

- If you have a minor change for a template over a certain station range.
 - Copy in Roadway Designer and make the change.
 - Change the copy
- If you have a template that is “almost” there
 - Set up Roadway Designer with template
 - Edit the template

End Condition Overrides

- No new templates needed
- Simply put in the Override

Roadway View Controls

- Right-Click in Cross Section View
 - Display Properties
 - Fit Solution
 - Center Backbone
 - Center on Current Offsets
 - Width
 - Vertical Exaggeration
 - Display
 - Writes to the DGN
 - Edit

New in SS2 !

- Template Library
 - Temporarily Unconstrain Points
 - Variable Constraint
 - Bulk Point Editing
 - Bulk Point Delete
- Roadway Designer
 - Access Template Library from Roadway Designer
 - Planimetric Display
 - Temporary Dimension Lines

Demo

Lets Check it Out!