



Working Smarter, Together

See Your Design Differently

John A Frampton
Product Manager MicroStation, PowerDraft and View

John Frampton – *Product Manager*

- Located in western Pennsylvania
- Bentley employee for over 12 years
- Over **twenty years** of design/CADD experience using and supporting **Bentley, Intergraph, and Autodesk products.**
- **CADD manager** for a very large engineering firm in Pennsylvania
- Email john.frampton@bentley.com

MicroStation®

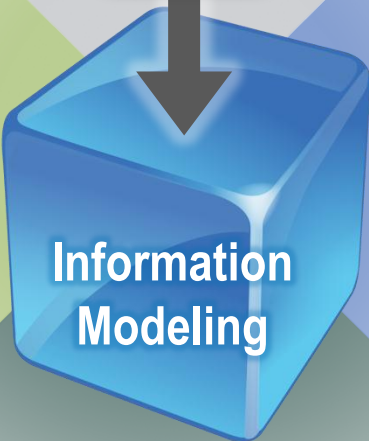
An unrivaled **information modeling environment** for architecture, engineering, construction, and operations for all infrastructure types...



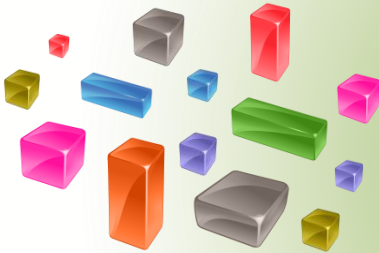
...that can be used as both a **software application** and as a **technology platform** for discipline-specific applications.

MicroStation

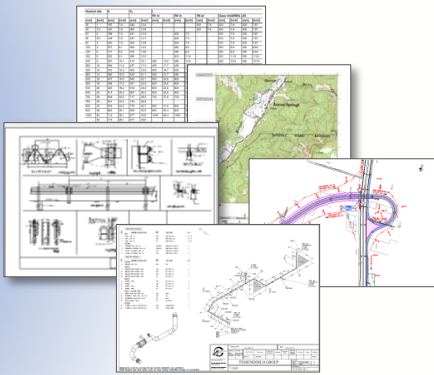
Immersive Interaction



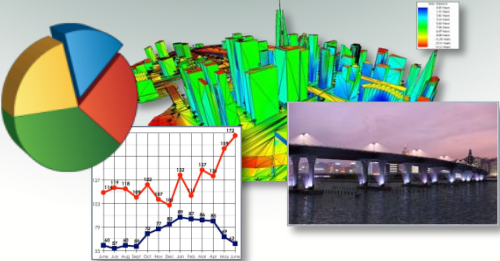
Comprehensive
Breadth and Depth



Trusted Deliverables



Performance Simulation

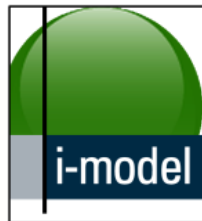
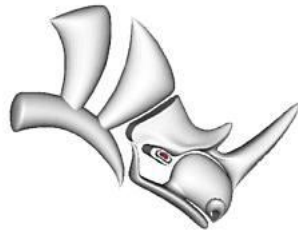
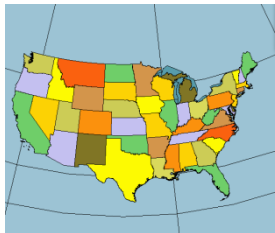


MicroStation V8*i* Enhancements to Date

MicroStation V8*i* Generation Enhancements

Comprehensive Breadth and Depth

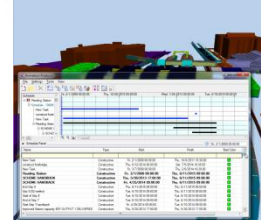
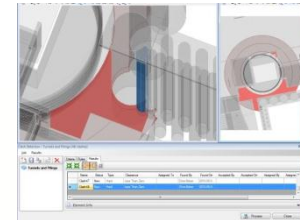
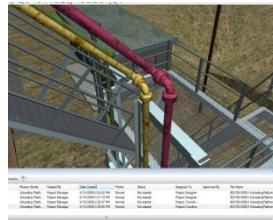
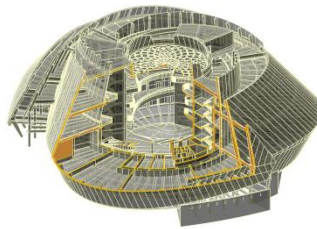
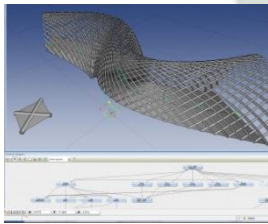
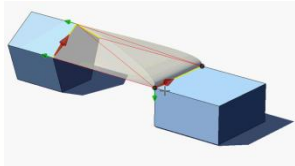
- Geospatial Referencing V8i
- Rhino 3DM V8i
- i-models SELECTseries 1
- ESRI SHP Files SELECTseries 1
- RealDWG 2009, 2010 SELECTseries 1 and 2
- Point Clouds SELECTseries 2



MicroStation V8*i* Generation Enhancements

Performance Simulation

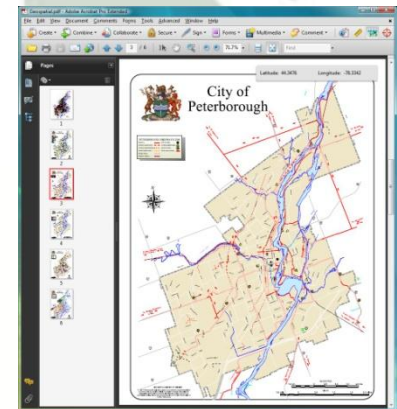
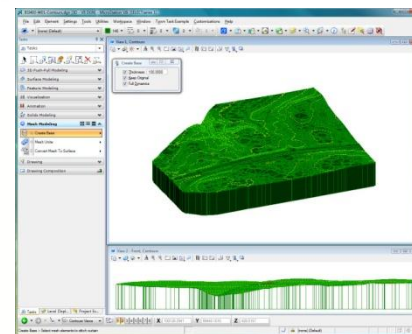
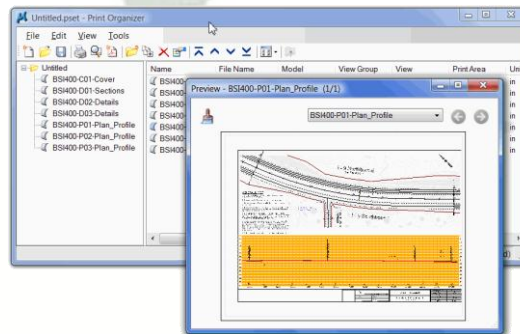
- Intuitive modeling tools
 - GenerativeComponents Extension
 - Dynamic views
 - Mark up manager
 - Clash detection
 - Schedule simulation
- V8i
V8i, SELECTseries 1 and 2
V8i, SELECTseries 1 and 2
SELECTseries 1
SELECTseries 2
SELECTseries 2



MicroStation V8i Generation Enhancements

Trusted Deliverables

- Luxology rendering and animation
 - Print organizer
 - i-models
 - 3D printing
 - Geospatial PDF
- V8i, SELECTseries 1 and 2
V8i, SELECTseries 1 and 2
SELECTseries 1
SELECTseries 1
SELECTseries 1



Agenda

- Element Templates
 - Terrain extender
- Display styles
- Thematic Display Styles
- Demonstration
- Question and Answer
- Closing

MicroStation V8*i* Generation Enhancements

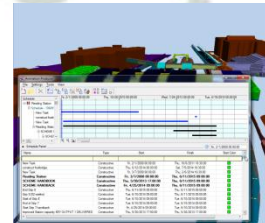
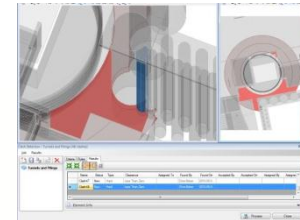
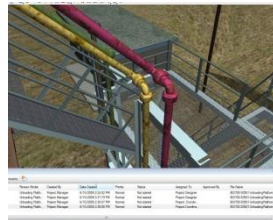
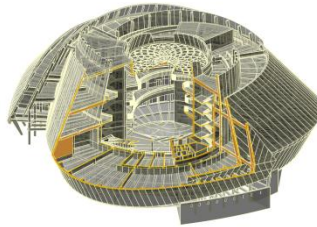
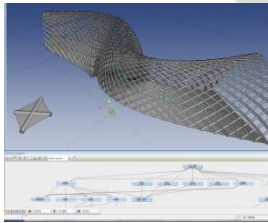
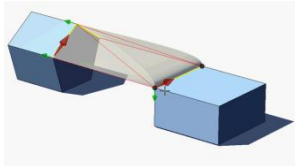
Performance Simulation

- Element Templates
- Display Styles
- Display Styles Thematic styles

V8i

V8i, SELECTseries 1, 2, and 3

V8i, SELECTseries 3



Element Template

- Defines properties of elements
 - Used to set the active settings for element placement
- Should be created and maintained in DGN libraries
 - This allows administrators to create templates in one place and to distribute them to many users
- May be applied to existing elements
- The primary purpose of templates is to increase consistency when drawing.

Element Templates

The screenshot displays the Bentley software interface with three main panels:

- Element Templates:** Shows a project tree for 'Geospatial.dgnlib' with subfolders 'Public Works', 'Arterials', 'Collectors', and 'Railway'. The 'Railway' folder is selected.
- Element Information:** A floating window showing the 'Selection' element with the text 'A Text: DGNLIB'. Below it, the 'General' tab is active, displaying a table of properties:

Property	Value
Description	Text: DGNLIB
Level	Default
Color	ByLevel (0)
Weight	0
Class	Primary
Template	None
Transparency	0
Priority	0

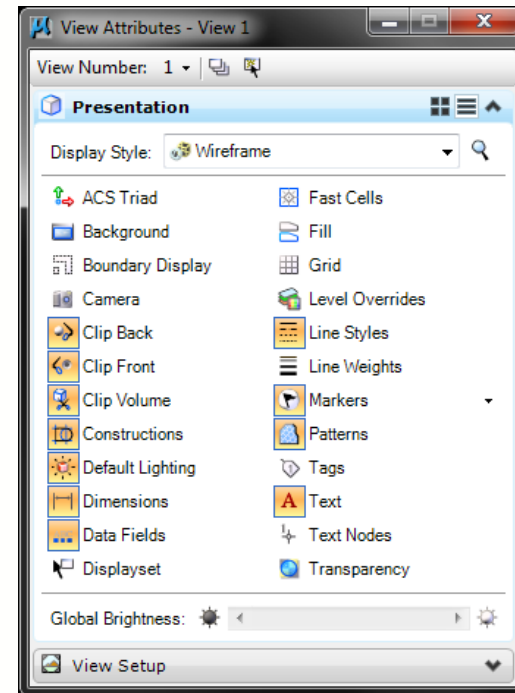
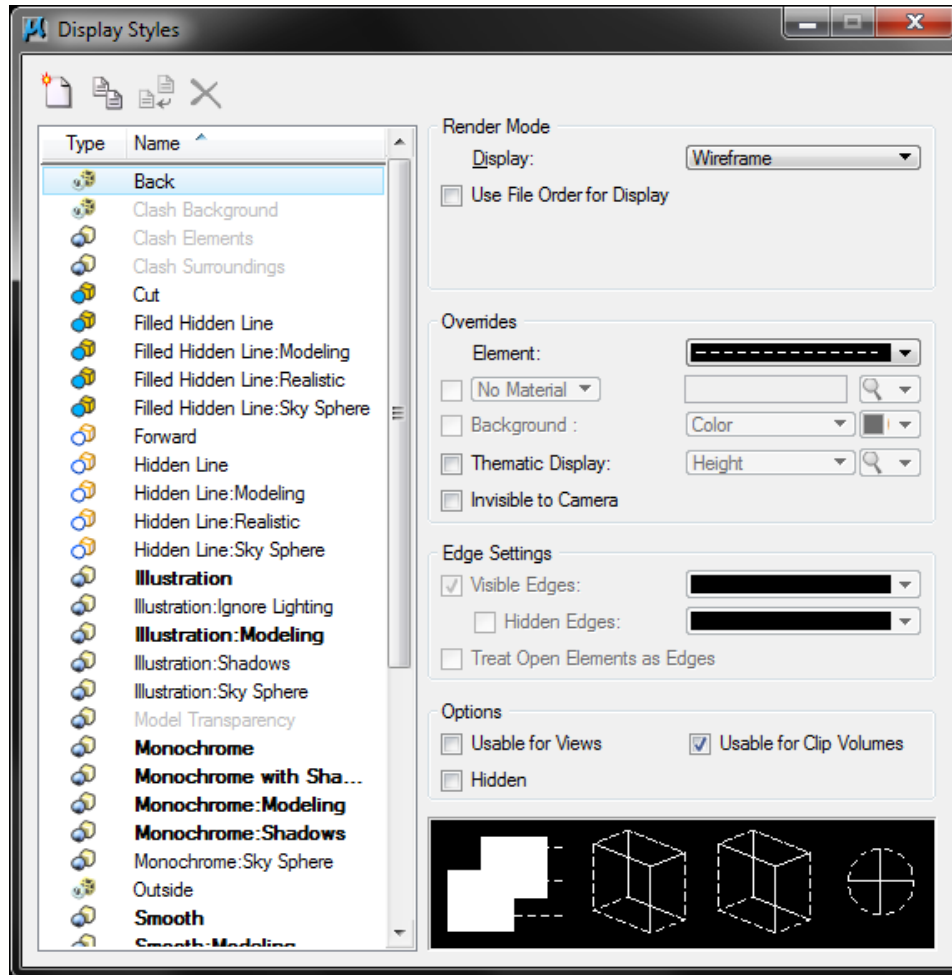
- Attributes:** A floating window at the bottom showing a toolbar with various icons and dropdown menus, including a 'Default' dropdown and several icons with '0' values.



Display Styles

- Predefined collection of render overrides
- Optional settings that can be applied to views, sections, or reference attachments
- Display styles are typically saved as shared resources in DGN libraries, but are copied locally when used

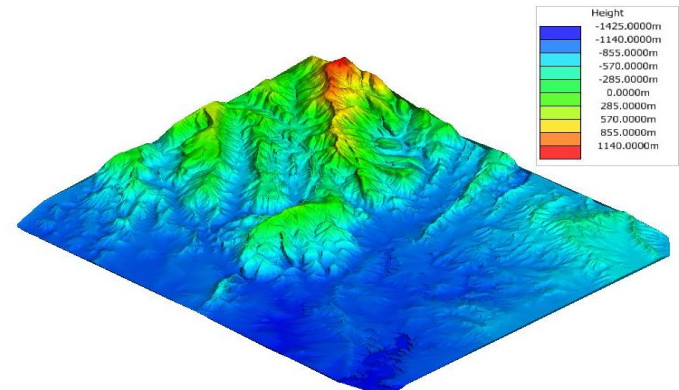
Display Styles





What are Thematic Display Styles?

- Thematic display style:
 - Displays a *rendered* model with **focus on a particular property or 'theme'**.
 - Thematic displays are generated by **special applications** called **Display Style Handlers**. (These handlers can be created by applications to meet discipline specific needs)
 - Thematic options available:
 - **Height** – Color is derived from the **height (elevation)** of the geometry.
 - **Slope** – Color is derived from either **slope angle** or percentage (rise/run).
 - **Aspect Angle** – Color is derived from the **slope aspect angle**. (a measure of the **direction** of the slope)
 - **HillShade** - Reflects the shaded areas from darker to lighter
 - Four thematic display styles are **delivered** with MicroStation V8i by default. You can change their settings in the Display Styles dialog.
 - Display Styles are now delivered in the **DrawingSeed.dgnlib** file



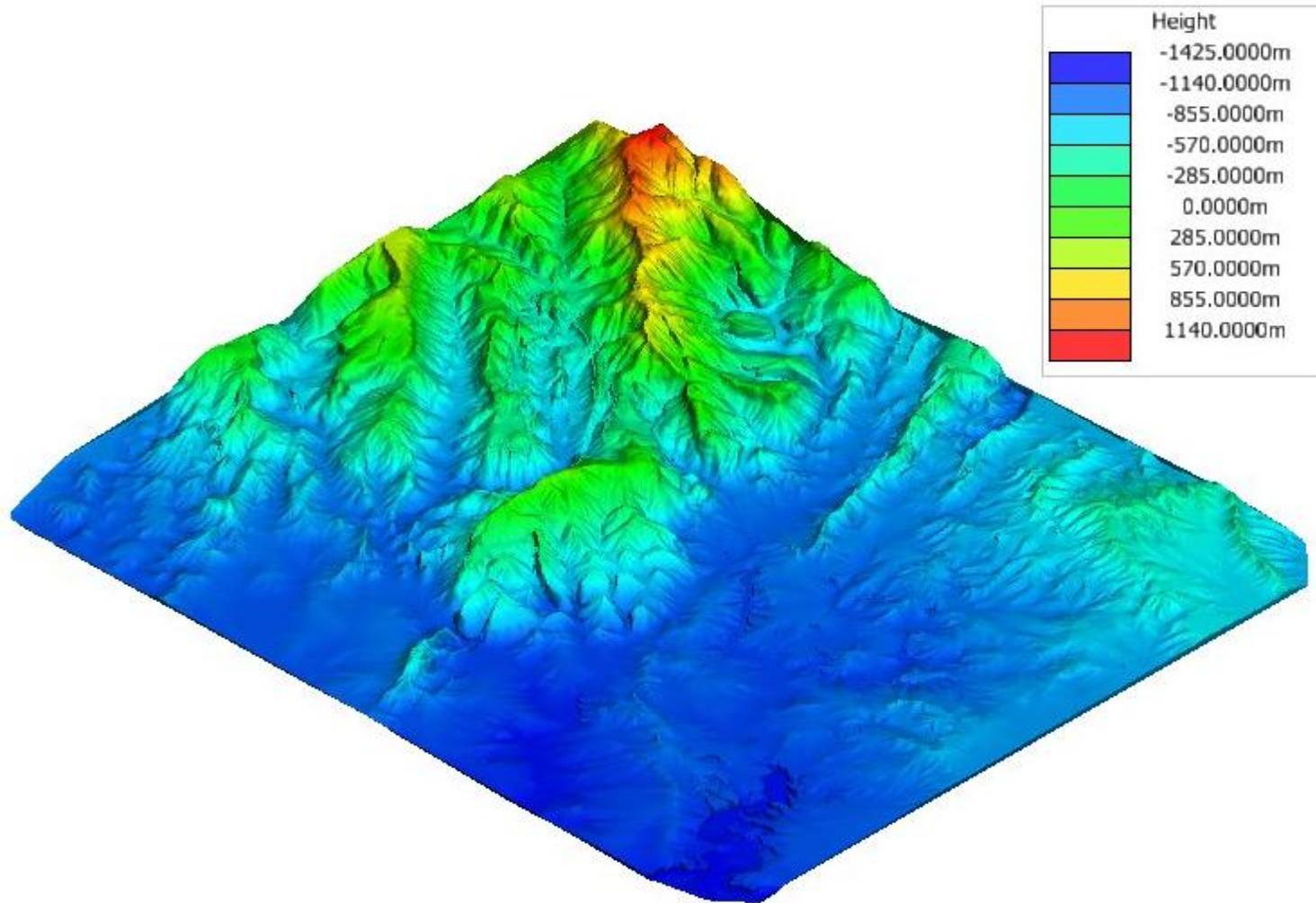
Thematic Displays Modify Display and Legend

The screenshot shows the 'Display Styles' dialog box in Bentley software. The 'Thematic:Height' style is selected in the list on the left. The 'Thematic Display' checkbox is checked, and 'Height' is selected in the dropdown. A secondary 'Legend' dialog box is open, showing a legend table with 9 rows of height ranges and corresponding colors.

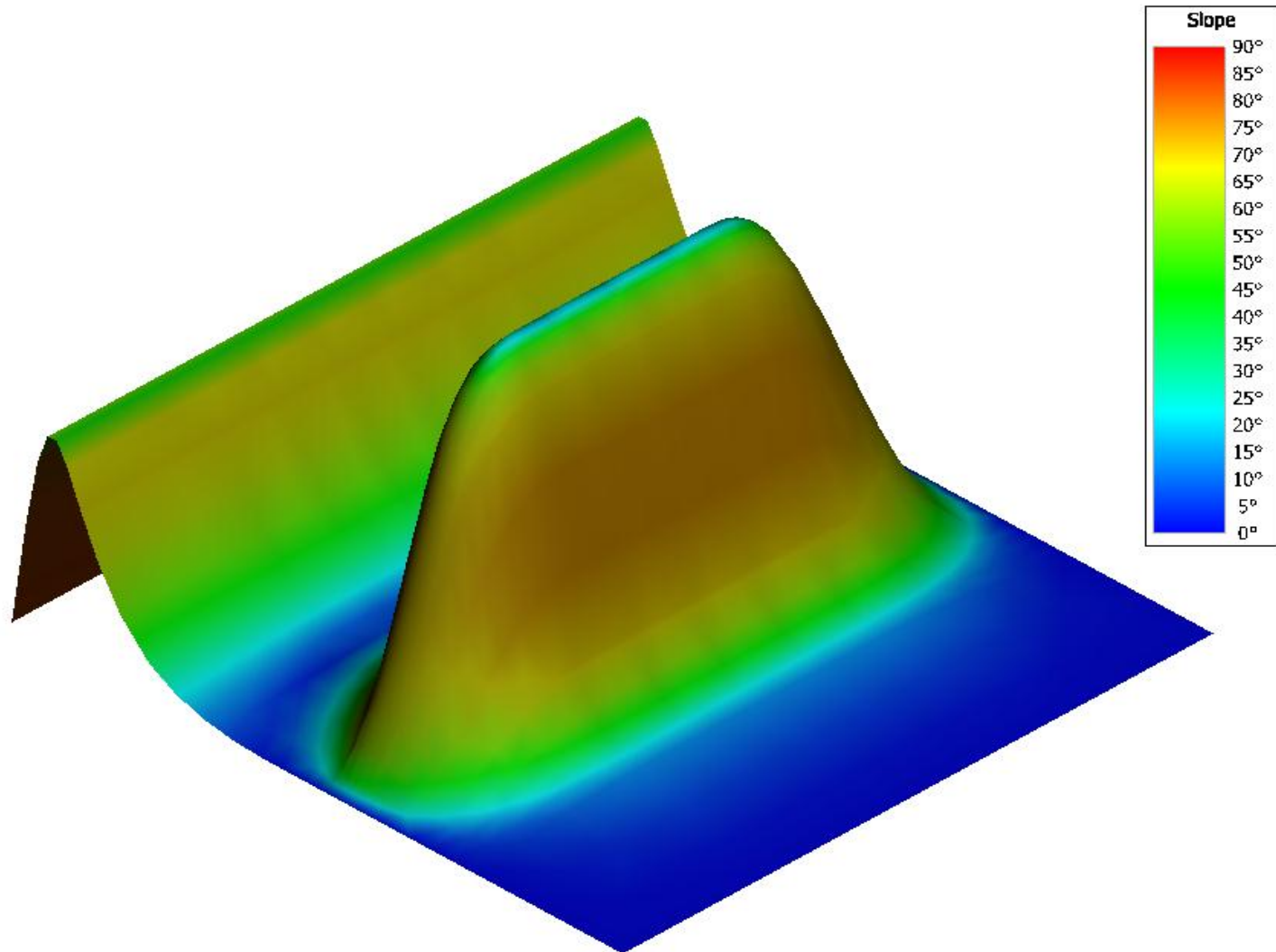
Legend Table:

Index	Color	Minimum	Maximum	Visible
1	Blue	3:751.7102	8:751.7102	✓
2	Blue	8:751.7102	13:751.710	✓
3	Blue	13:751.710	18:751.710	✓
4	Blue	18:751.710	23:751.710	✓
5	Blue	23:751.710	28:751.710	✓
6	Blue	28:751.710	33:751.710	✓
7	Blue	33:751.710	38:751.710	✓
8	Blue	38:751.710	43:751.710	✓
9	Blue	43:751.710	48:751.710	✓

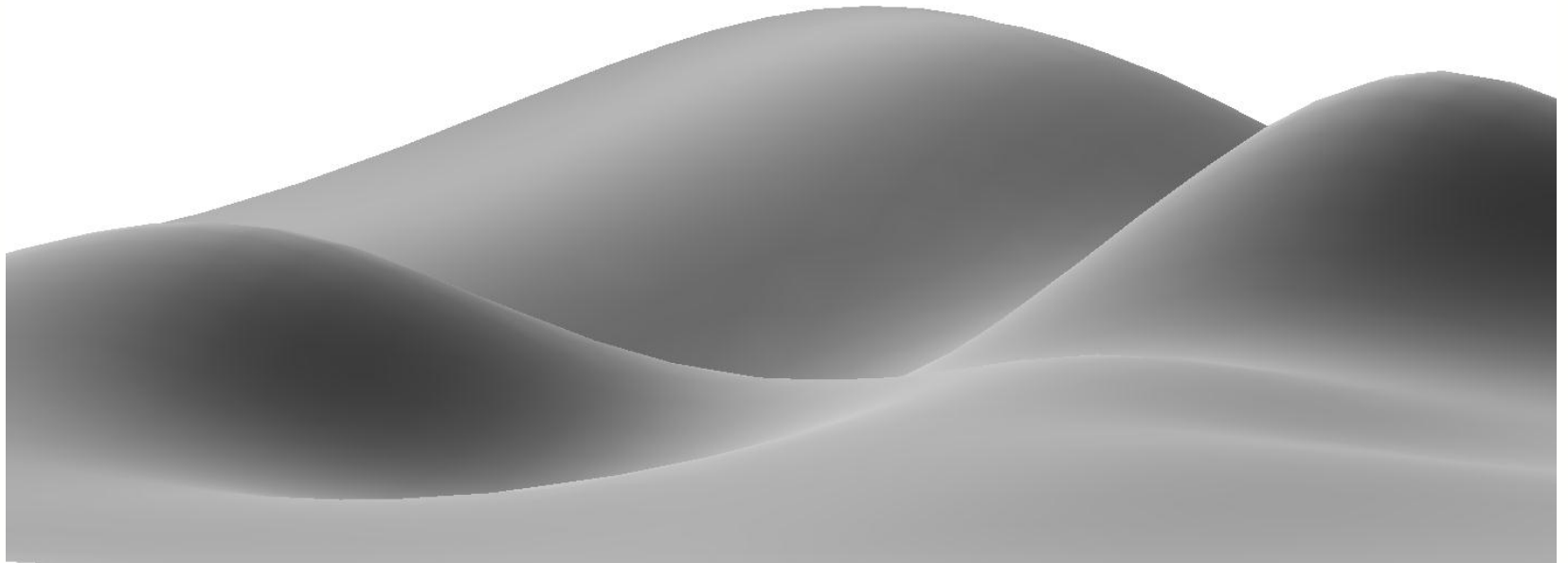
Thematic Displays - Height



Thematic Displays - Slope



Thematic Displays – Hill Shade





Q&A

You have

Questions

We have

Answers

Bentley V8i (SELECTseries 3) – Autodesk® RealDWG™ 2013 service pack 1.1

- Features include:
 - Supports opening and saving 2013 DWG files
 - Works with many Bentley V8i products *
 - Works with 2013 Autodesk® Object enablers
 - Support for AutoPlant and ProStructures Object enablers
 - Contains RealDWG™ 2013 service pack 1.1

Commercial Releases

- MicroStation SELECTseries 3 update 1 (2012/10)
- PowerDraft SELECTseries 3 update 1 (2012/11)
- Bentley View SELECTseries 3 update 1 (2012/11)



Mark Penn

Profile

Blogs

MARK PENN'S POSTS

Sort by: Most Recent | **Most Views** | Most Comments

MICROSTATION V8I BLOG
(New in SS3) Discipline and Purpose Properties for Saved Views ★★★★★ 5

Mar 26, 2012 by **Mark Penn**
MicroStation V8 i (SELECTseries 3) introduces two new properties to classify Dynamic Views and Drawings - Discipline and Purpose. For a large, multi-discipline infrastructure project, it is conceivable for you to have 100's if not 1000's of Dynamic Views and Drawings. In this scenario, Discipline and Purpose properties allow that additional layer of granularity to help you filter the Dynamic Views and Drawings so they are manageable and...

MICROSTATION V8I BLOG
(New in SS3) Hypermodeling - Annotations in 3D ★★★★★ 4

Mar 20, 2012 by **Mark Penn**
Gone are the days when in a design model you could just view a model geometry and had to traverse to the sheet and drawing models each time you want to view the dimensions, annotations and other details. Now with hypermodels, you can place callouts in 3D design model and also view sheet graphics in a 3D design model, in place, automatically. This makes drawings easier to understand and interpret. The general workflow to use callouts in a project is...

MICROSTATION V8I BLOG
(New in SS3) Drawing Seeds in DGN Libraries ★★★★★ 3

Mar 20, 2012 by **Mark Penn**
The process of creating drawings and sheets is a complex operation since it involves several subsystems. The outcome is effectively a chain of objects as follows: Clip Volume > Saved View > Drawing Model > Reference Attachment in Drawing Model > Sheet Model > Reference Attachment in Sheet Model > Drawing Title. The following poster describes these objects and their relationships. In order to comply with your company's CAD standards...

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- Share best practices
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Be Together 2012

THE BENTLEY USER CONFERENCE



Working Smarter, Together

Project Explorer

John A Frampton
Product Manager MicroStation, PowerDraft and View