



Transitioning to OpenRoads Technology

Presented by: Ernst van Baar

Transitioning to OpenRoads Technology

- This presentation provides instructions for transitioning standards and workflows and developing your implementation plans. Learn how to utilize the exciting new tools in SELECTseries 3 of the civil products. It is targeted for all Bentley Civil users.
- At the end of this training session, an assessment will be given. We will review all assessment questions and answers to see what you have learned.

Learning Objectives

After this session you will:

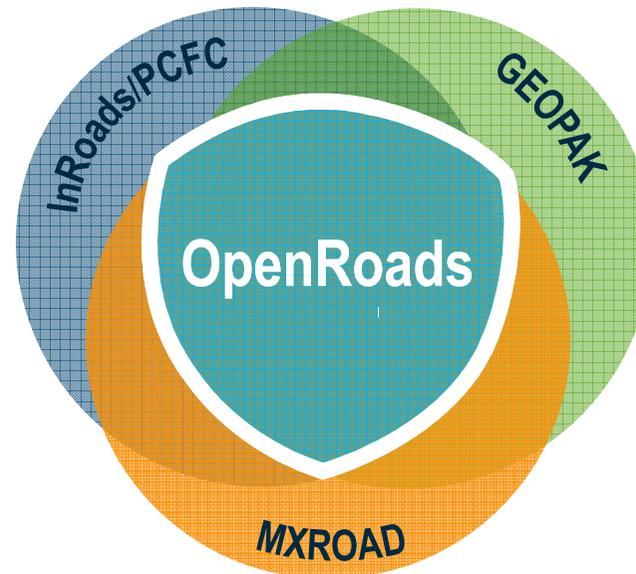
- understand how to run both SS2 and SS3 simultaneously.
- define which DGNLibs need upgrading.
- identify which resources need to be created new for SELECT series 3



What is OpenRoads?

OpenRoads is...

- the common technology for Bentley civil products that offers immersive interaction of survey, corridor modeling, geometry, terrain modeling, dynamic sections, and much more.
- immersive interaction of
 - Survey
 - Geometry
 - Terrain modeling
 - Corridor modeling
 - Dynamic cross sections
 - Civil cells
 - Design intent
 - Design-time visualization



A group of five people are standing on a large, dark shadow of a question mark cast on a sandy beach. The scene is set against a warm, orange sunset sky. The people are dressed in casual summer attire, and their shadows are cast on the sand. The overall mood is one of curiosity and inquiry.

I'm not a user..

What is SELECTseries 3 (in 25 words or less)?

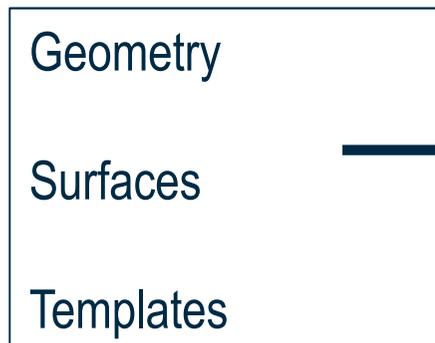
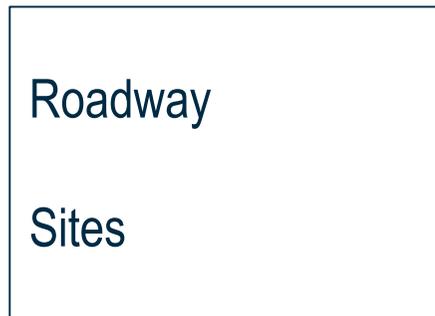
SELECTseries 3 is....

intuitive design that exceeds civil engineering's rigorous demands, real-time 3-D modeling with instant feedback that captures design intent and persistence, all in DGN files.

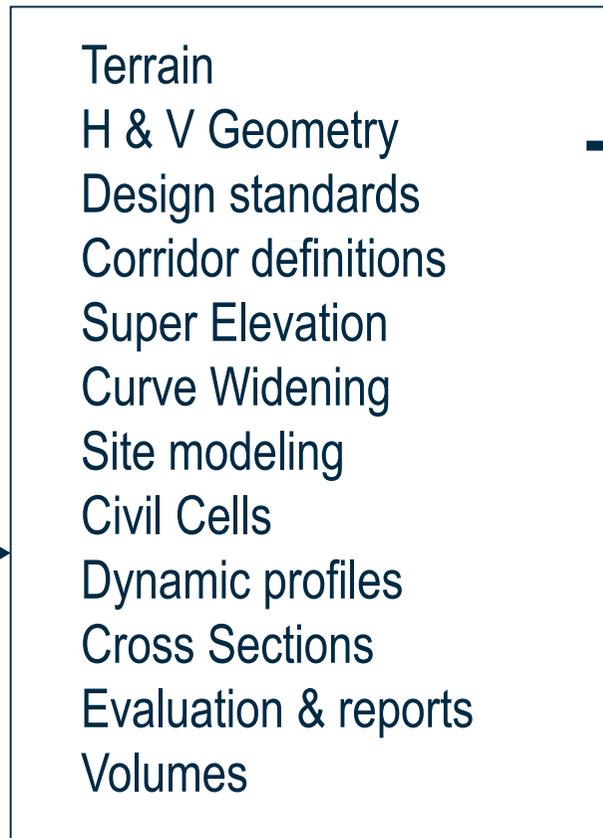


Bigger picture

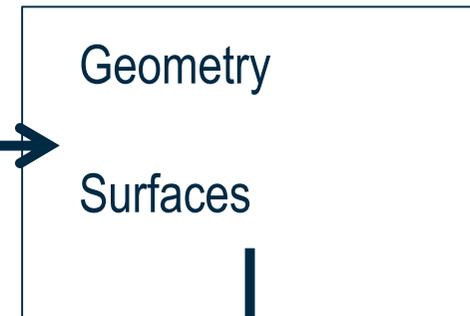
SS2 files



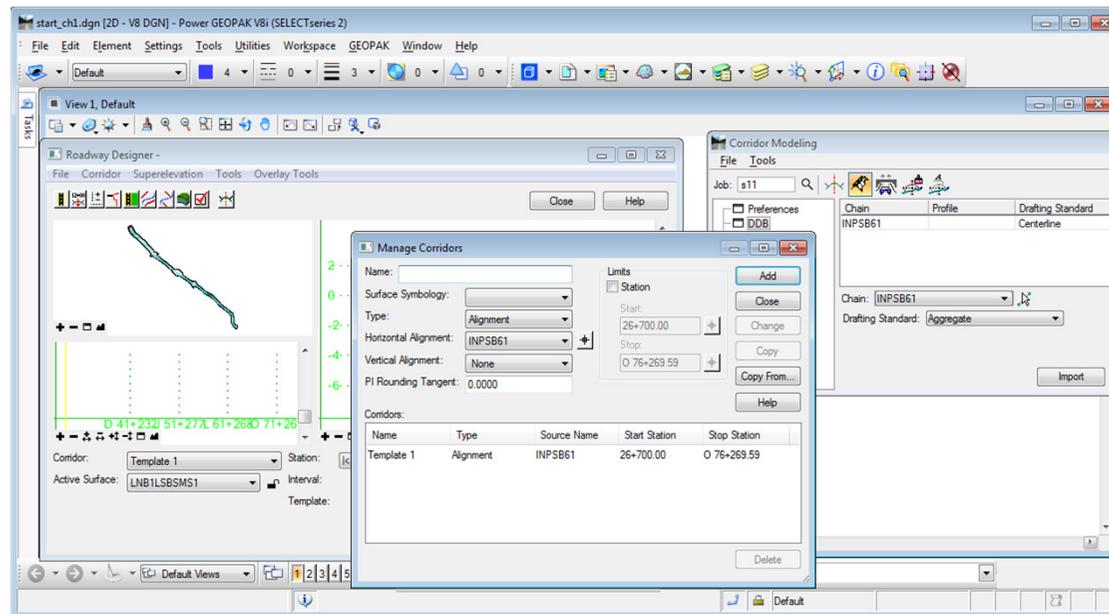
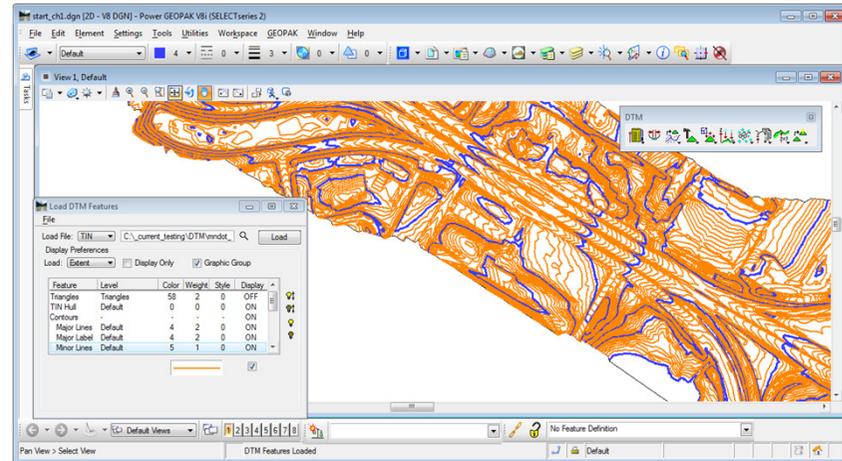
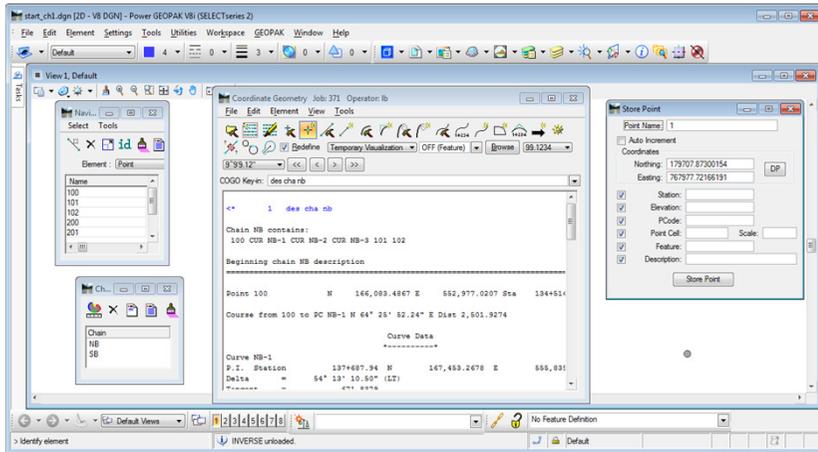
SS3



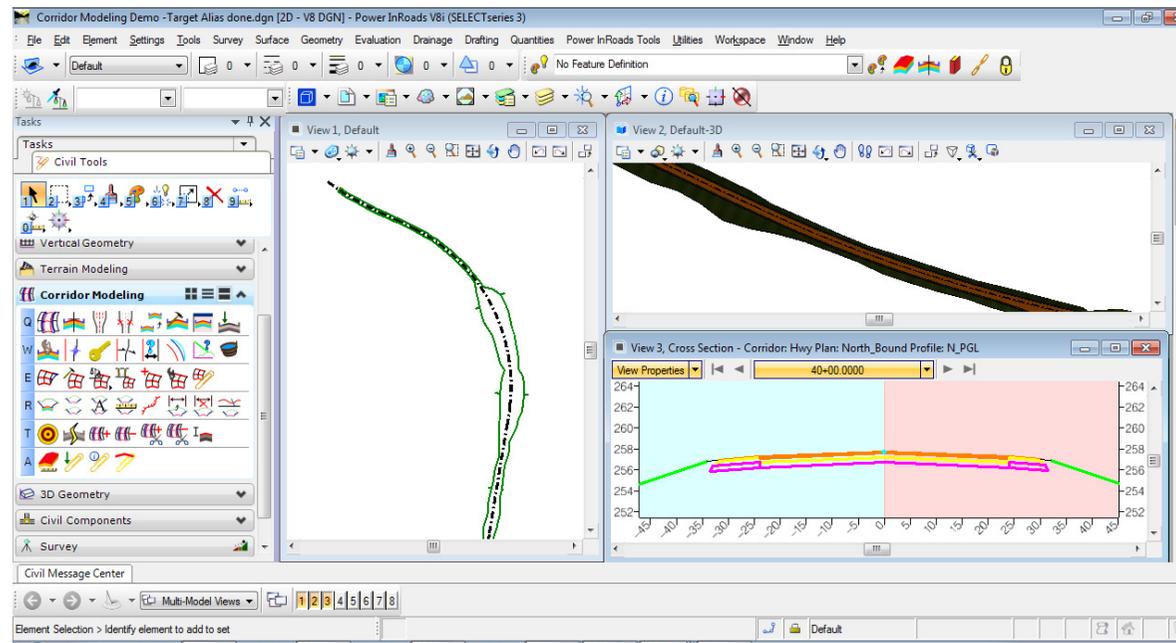
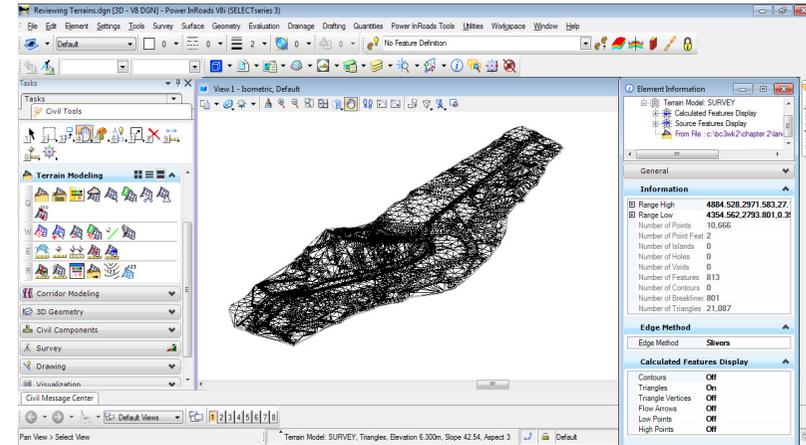
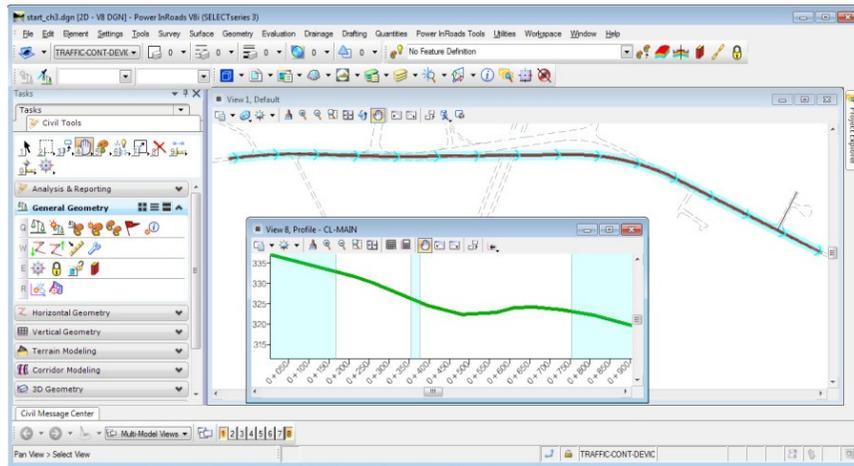
SS2 plan production



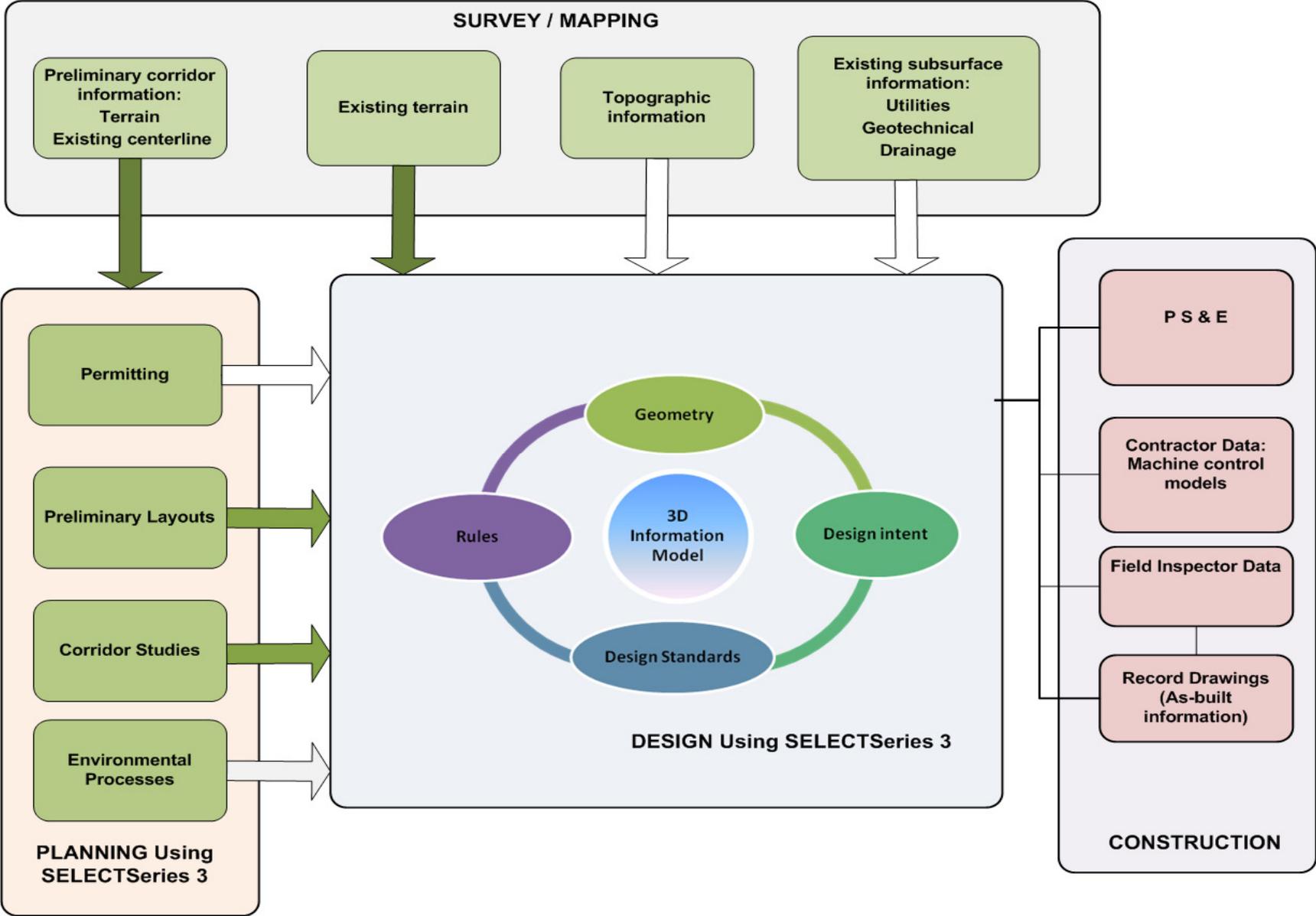
SELECTseries 2



SELECTseries 3



SELECTseries 3



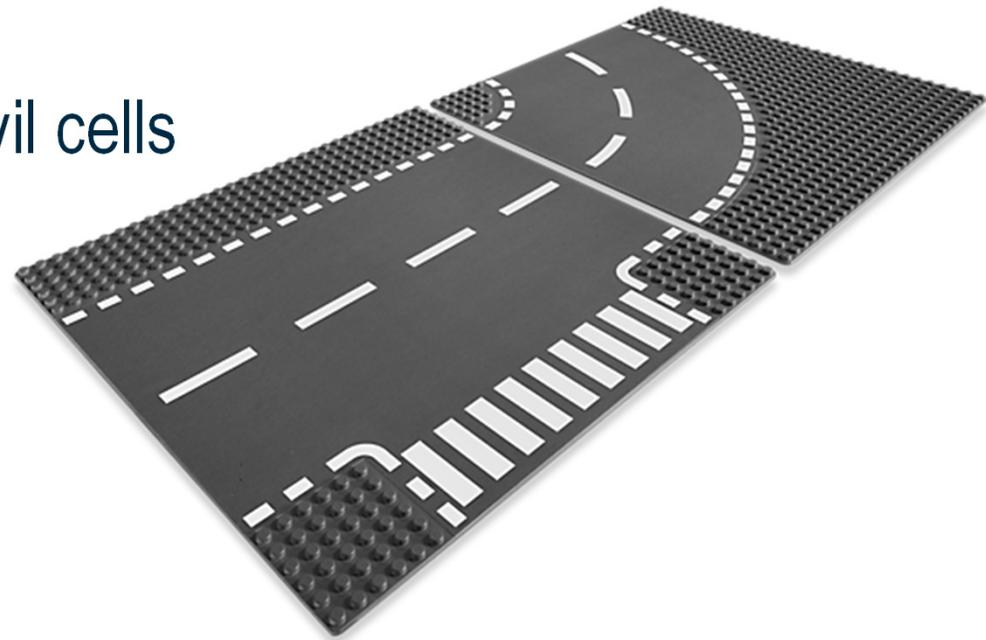


What is the hype about “civilized” cells?

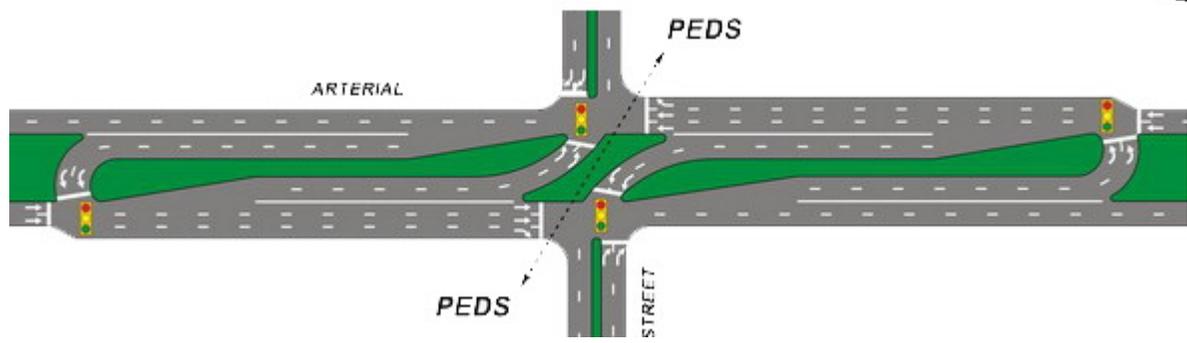
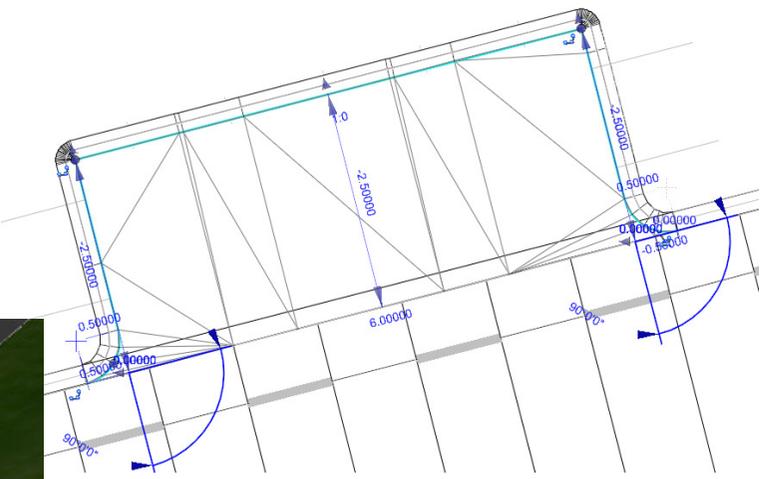
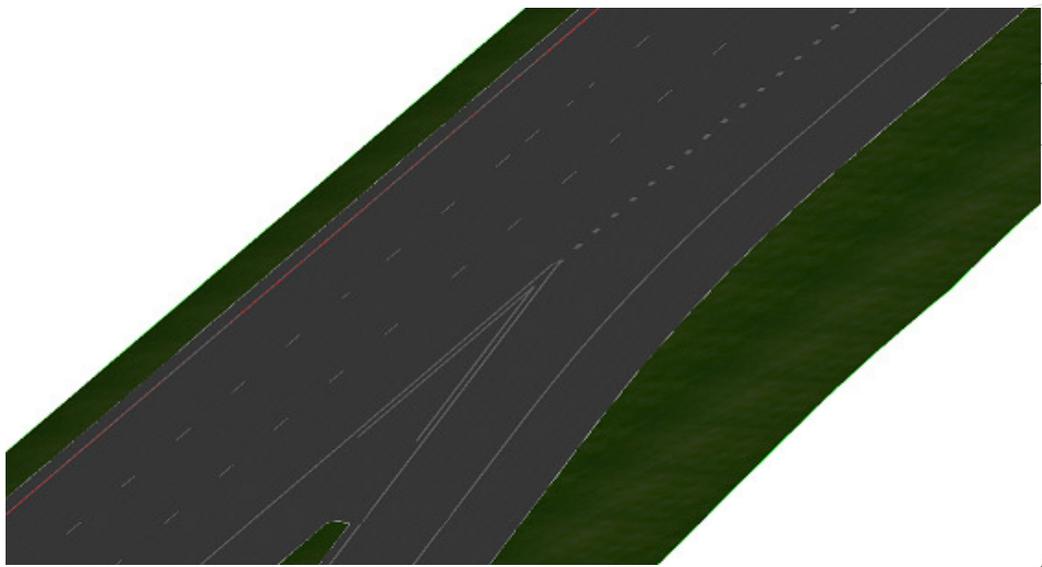
What are Civil Cells

Civil Cells

- Build your own digital “Lego”
- Automate design processes
- Combine civil cells with civil cells



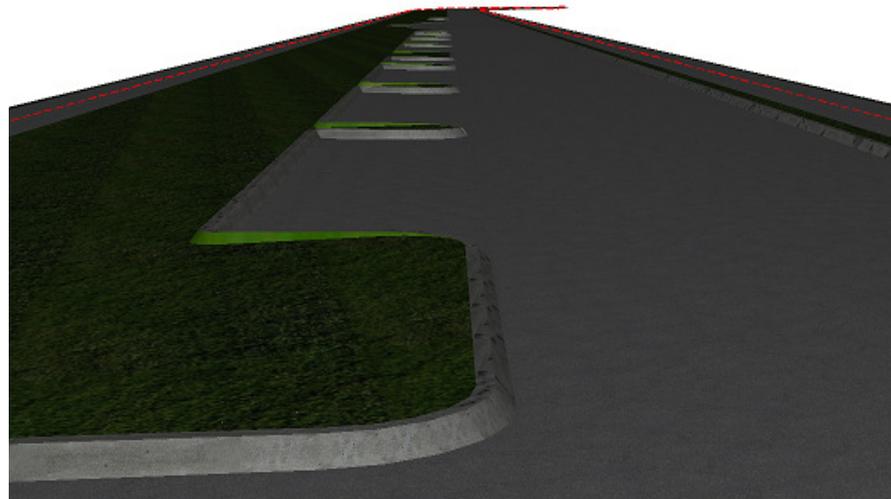
CIVIL cells



Why Are CIVIL Cells Important?

Repeatable geometric modeling

- Organizations can create civil cells to reflect design standards
- User can re-use previously stored geometric configurations, but adjust for project specific details



Good News About Civil Cells

- Very powerful addition to Open Roads technology
- Sample libraries provided with installation package
- Best Practice:
 - Keep it simple!
 - Get familiar with Open Roads – geometry and corridor modeling
 - Review standards to earmark potential candidates
 - Poll users on usability and prioritize



Workshop Using Civil Cells

Wednesday 9:00am – 16:00

Ian Rosam, Product Manager, BSW - Development, Civil Design

A group of five people, including men and women in various colored shirts, are standing on a large, dark shadow of a question mark. The background is a bright, warm orange color. The shadow of the question mark is cast on the ground, and the people are standing on the stem of the question mark.

Can I run SS2 and SS3 on the same machine?

Installation Considerations

SELECTSERIES 2 TO SELECTSERIES 3 OR BOTH?

- SELECTseries 3 dependency on MS 08.11.09.397
- Set-up / testing - Both can be loaded on same workstation
- Power products great alternative!
- Caution using resources in both versions



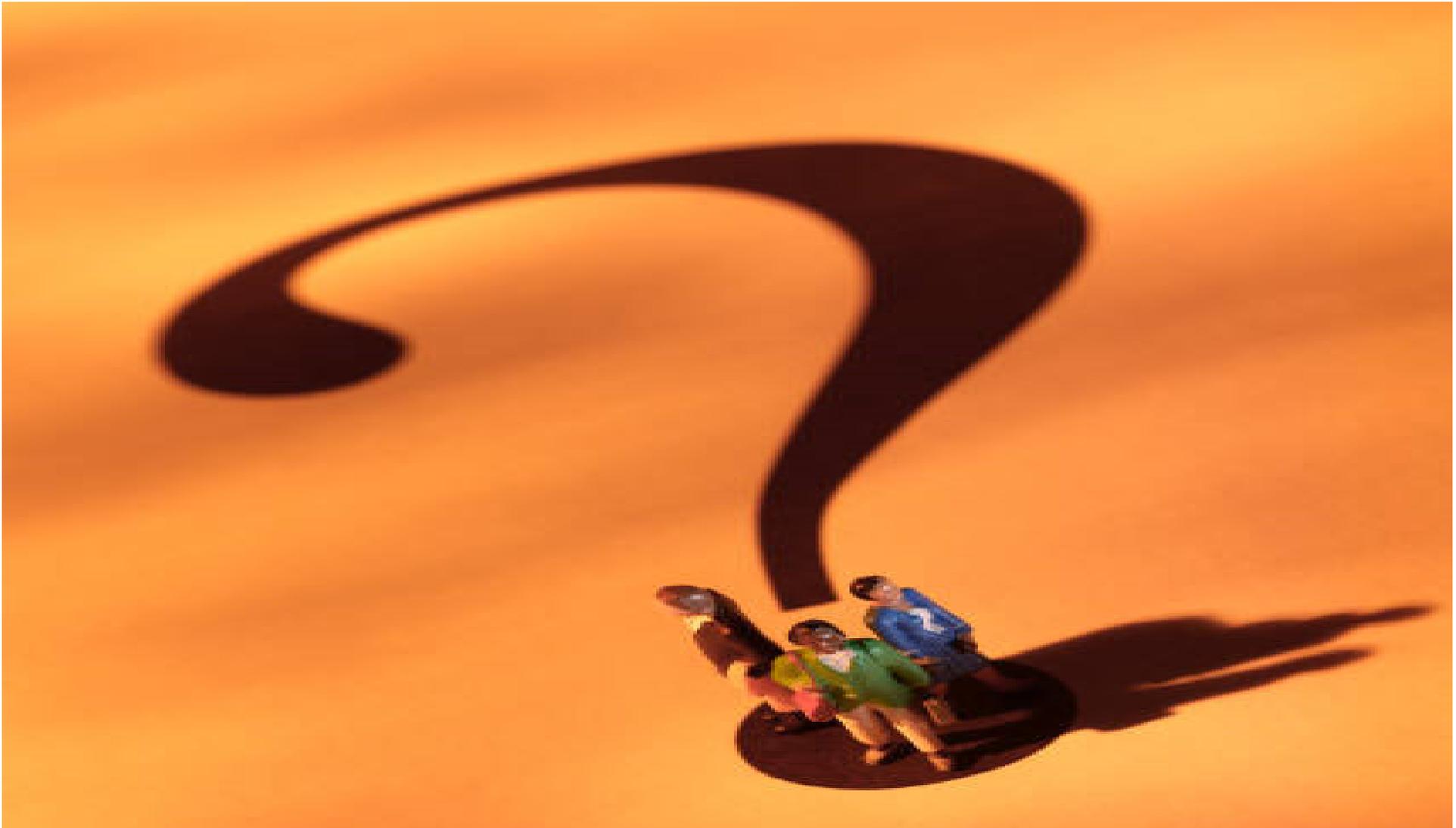
What kind of training do I need?

Training Options

No training – Not recommended!

Convert SELECTseries 2 training - Just “picture swapping”

Successful SELECTseries3 Training = Effective, Productive User



**There's a lot of set-up to any software upgrade.
What can I reuse and what do I have to recreate?**

Resource Usage

Reuse:

- MS levels, fonts, cells, line styles
- Element templates
- DGN Libraries
- Survey TIW files
- XIN, PSS, DDB, SMD (XML)
- XSL style sheets (reporting)

Create:

- Element templates
- Graphical filters
- DGN libraries
- Project settings
- Civil cells

Upgrade:

- Template library – add superelevation flag
- Design Standards – add vertical



Lecture Understanding Features

Tuesday 13:30 – 14:20

Ernst van Baar

Design Standards - Review horizontal and vertical Design Standards – validate local standards

Element Information

Selection
50 kph

General

Description 50 kph

Extended

Vertical Design Standard

Minimum Slope	0.50%
Maximum Slope	6.00%
Maximum Difference in Grade	4.00%
Vertical Table Type	K Table
Table	

Element Information

Selection
50 kph

General

Description 50 kph

Extended

Vertical Design Standard

Vertical Design Standard 50 kph

Design Values

Speed	50
Default Radius	255.00
Minimum Radius	180.00
Maximum Radius	520.00
Transition Type	Equation
Centripetal Acceleration	0.3
Include Transitions	True
Check Tangency	True

Arcs

Tangents

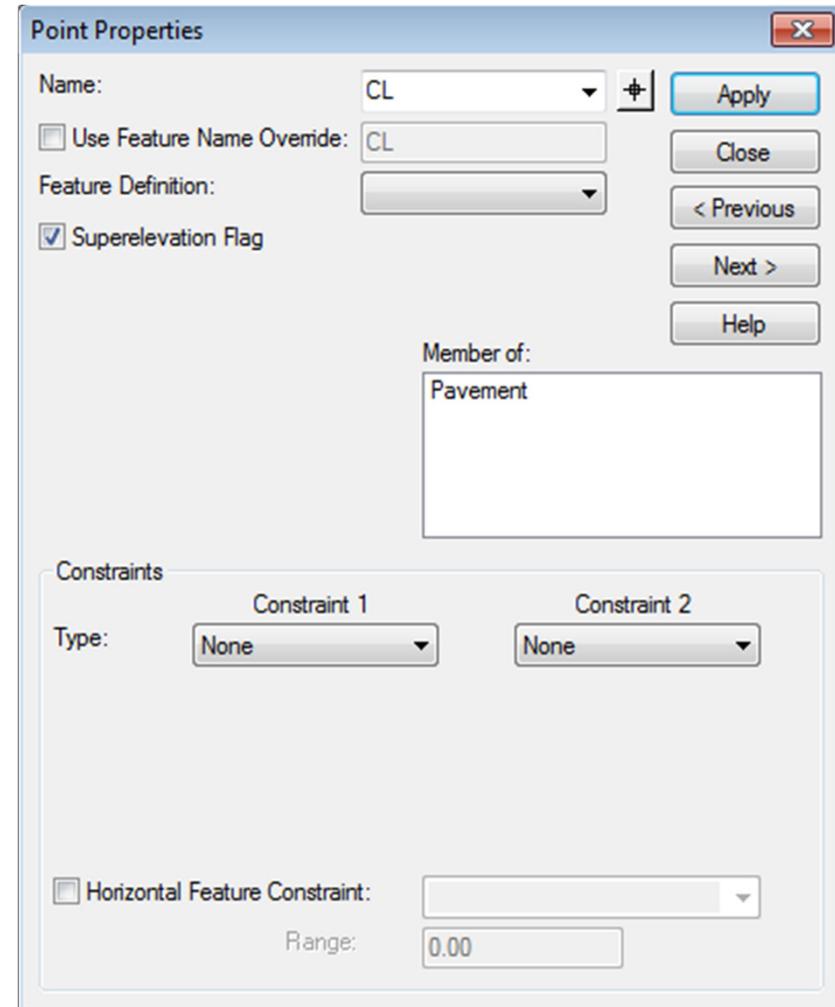
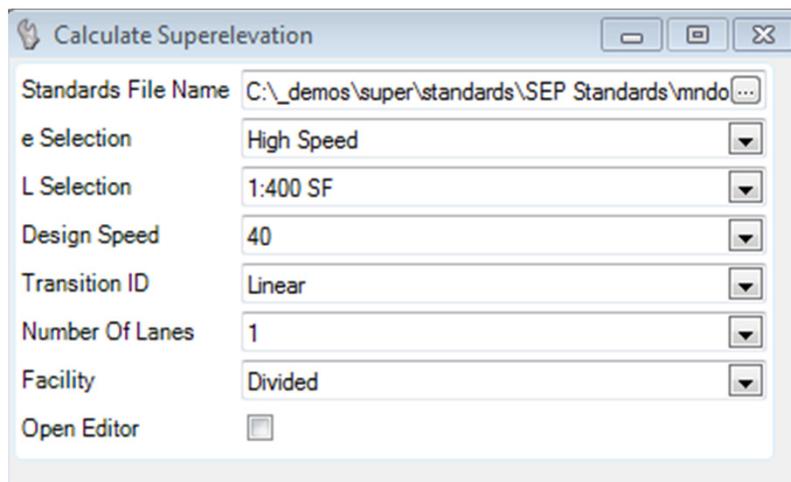
Vertical table Editor

	Speed	Sag Minimum	Sag Default	Crest Minimum	Crest Default
▶	50	9.00	9.00	6.50	10.00
	60	13.00	13.00	10.00	17.00
	70	20.00	20.00	17.00	30.00
	85	20.00	20.00	30.00	55.00
	100	26.00	26.00	55.00	100.00
	120	37.00	37.00	100.00	182.00

Row: 1 of 6

Superelevation Standards

- SEP and SRL are supported.
- Superelevation tables – do you have your standards currently set up and in production?





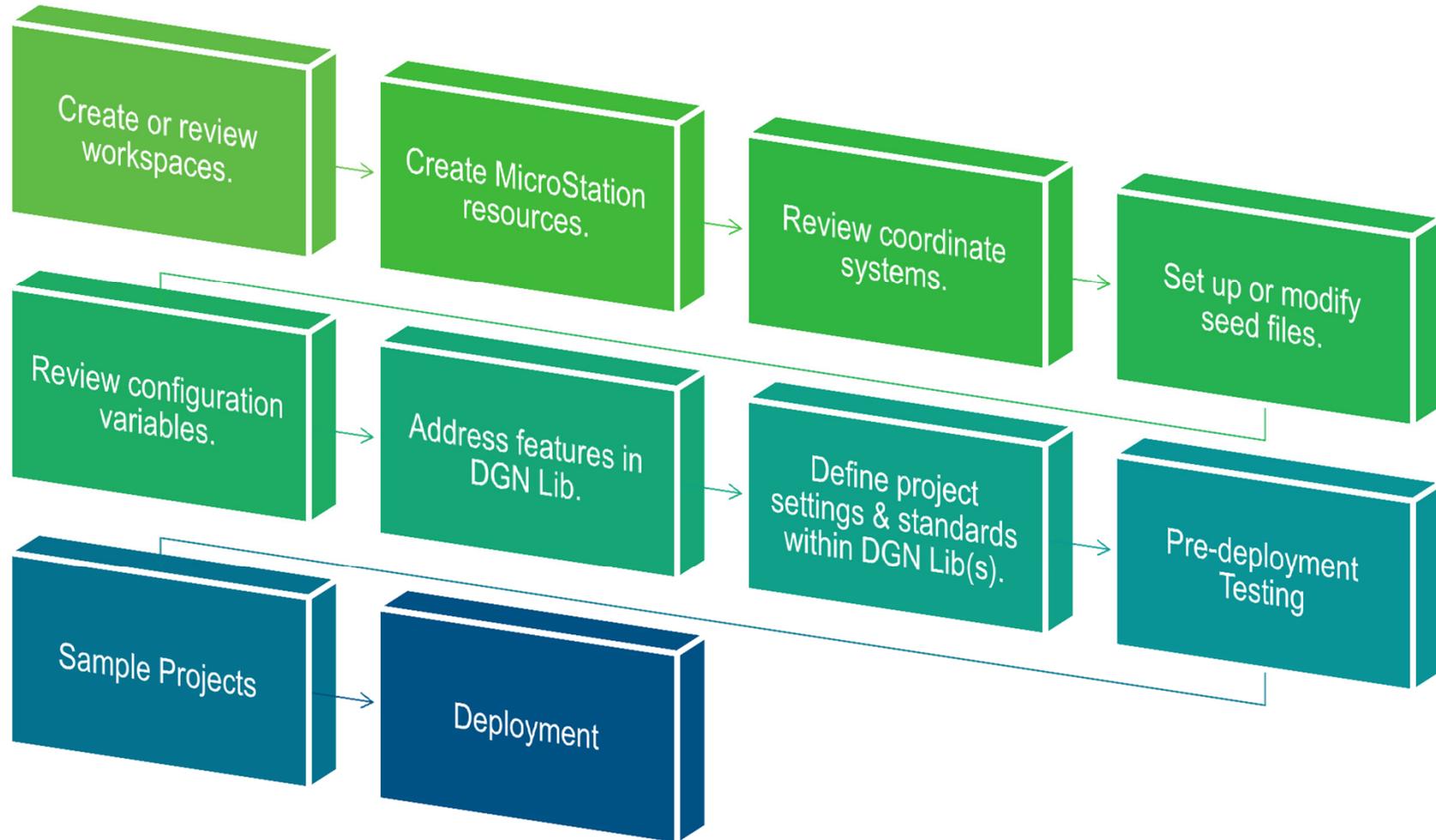
Workshop Superelevation in the OpenRoads Environment

Tuesday 10:30-12:20 O'Clock
Maria Persson



I downloaded and installed the software and I'm thoroughly overwhelmed.. Where do I start?

Transitioning to SELECTseries 3



What is a *MicroStation Workspace*?

- A custom MicroStation environment or configuration.
- By selecting a defined workspace, you customize MicroStation for a specific discipline, project, task, or standard.

Civil Workspace



Advance Preparation - MicroStation

- Review current MicroStation resources – are they in DGNLibs or can they go there? How are XIN, DDBs and PSS affected?
- Development of MicroStation element templates and graphical filters (such as for terrain models)
- Review CAD standards – changes due to Corridor Modeling, geometry, use of reference files

Advance Preparation - Civil

- Review Design File Settings within Seed Files – Determine default settings for Civil Formatting
- Review Workspace Preferences – View Options > Civil
- Review new configuration variables
- Review new workflows and determine which areas may be moved forward to new methods.
- Are there any customized workflows that need to be integrated?
- Review reports; determine defaults, deficiencies

Advance Preparation - Engineering

- Review horizontal and vertical design standards – validate local standards.
- Superelevation tables
 - Do you have your standards currently set up and in production?
 - Do you follow Danish standards or use customized standards?



Should partially completed projects be moved to SELECTseries 3 or completed in SELECTseries 2?

Considerations

- Has 3D corridor modeling started in earnest?
 - Built in transitions, supers, target aliasing...
 - IRD is not upward compatible

A group of five people, including men and women in business attire, are standing on a large, dark shadow of a question mark. The background is a bright, warm orange color. The shadow of the question mark is cast on the ground, and the people are standing on the stem of the question mark. The overall scene suggests a decision point or a question.

**Should I stay on SELECTseries 2 or move to
SELECTseries 3?**

Advantages of Moving Ahead

- SELECTseries 3 the first release on the OpenRoads technology – more to come!
- Slowly transition by project or functional group
- Great new tools for productivity enhancement!

Native Product Changes

- Roadway Designer modeling application removed and replaced by OpenRoads modeling technology
- Removed Site Modeler commands / application – superseded by OpenRoads modeling technology
- Roundabout tools removed and replaced by OpenRoads technology
- Install procedure allows SELECTseries 3 to be installed concurrently with SELECTseries 2.

Native Product Changes - InRoads

- Cross section commands moved to OpenRoads technology
- Improved integration between ProjectWise and the geometry database (.ALG)

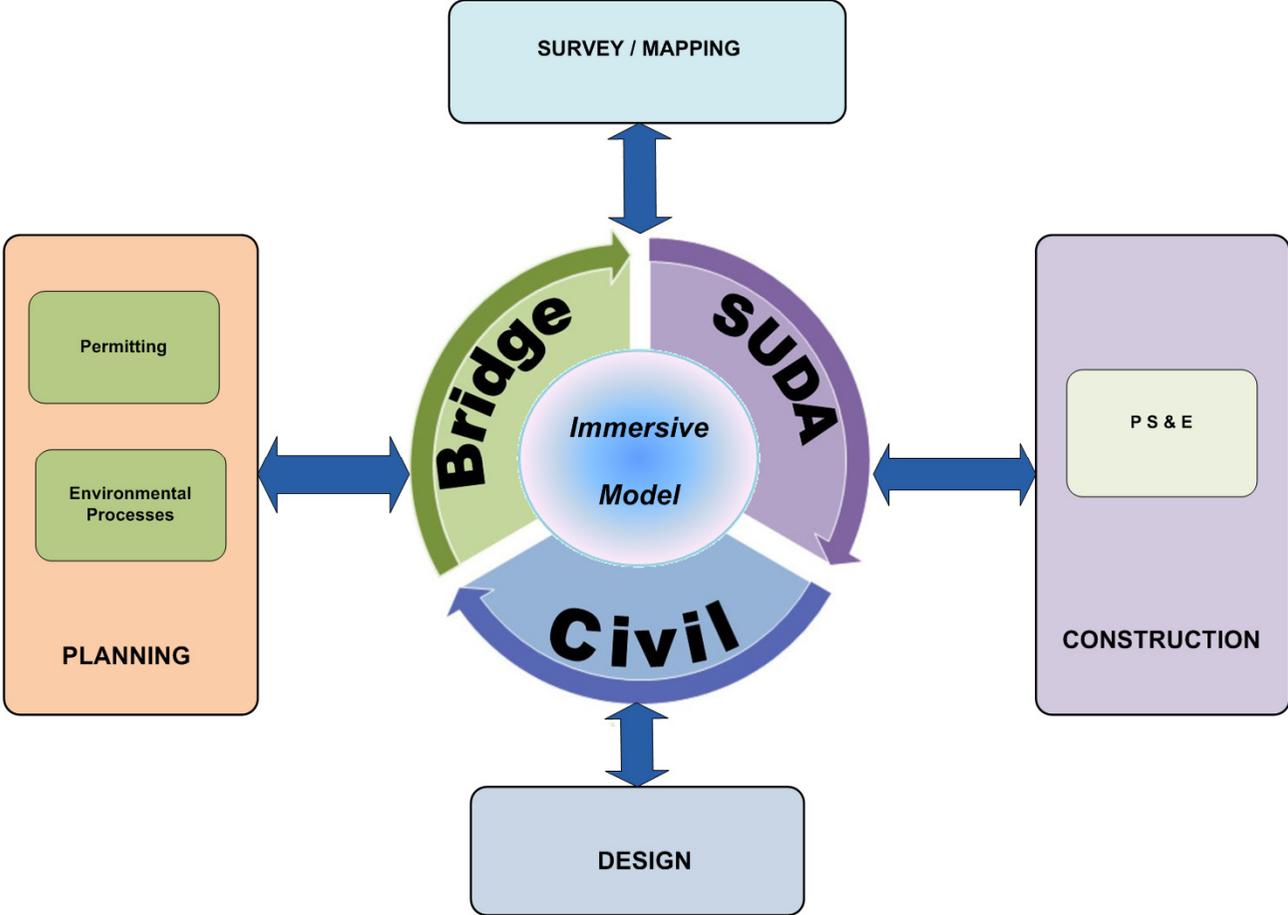
Native Product Changes - GEOPAK

- Corridor modeling application removed and replaced by OpenRoads functionality.
- Ability to cut cross sections from a .DTM file was removed from the Draw Cross Sections application.
- Improved integration between ProjectWise and the geometry database (.GPK)
- Added new Cross Section Drawing, Earthwork and Sheeting capability through the OpenRoads tools.

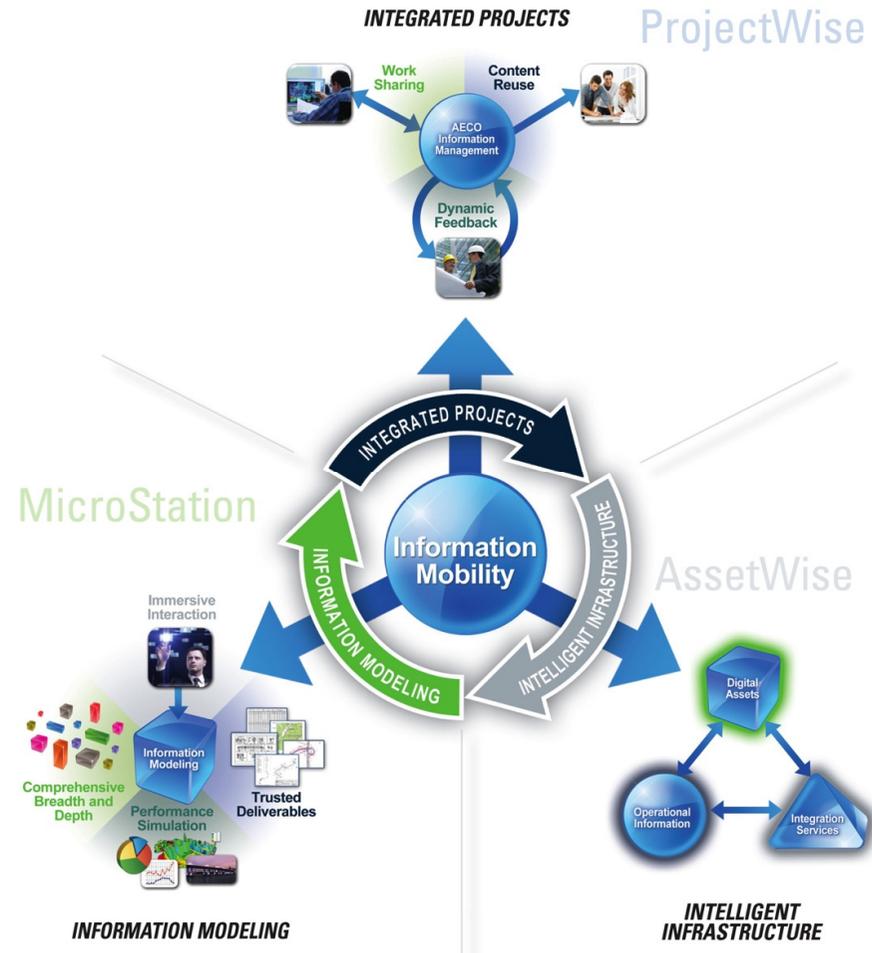


**Should I bypass SS3 and just wait for SS4? Or
SS27? Or SS56?**

BEYOND SELECTSERIES 3



EVOLUTION OF CIVIL MODEL TO INFORMATION MOBILITY



Learning Paths: Ready-Made Training Plans

Choose from:

- Bentley recommendations
- Configure your own
 - Organizational
 - Personal

Select:

- Product(s) and version(s)
- Language
- Training type

Enroll team members in:

- One learning path
- Multiple learning paths

Personalize Learning Path

Use this form to personalize a Learning Path. You can enable/disable specific course offerings by expanding the "Find Training" tab, and even add new course blocks into your Learning Path. Click the Help icon for more detailed instructions and a Step-By-Step guide.

Name* Peter's custom lp
Description*

Learning Path Type Personal Learning Path Set as Company Learning Path

Courses

MicroStation Essentials III
MicroStation Essentials is designed for the new MicroStation user and builds a solid foundation in the concepts, tools and features found in the MicroStation drawing environment. Starting with setting... [More](#)

Find Training (14)

Live	Title	Lang
<input type="checkbox"/>	MicroStation Essentials	Engl
<input type="checkbox"/>	MicroStation Essentials Basics	Engl
<input type="checkbox"/>	MicroStation Essentials Express	Engl
<input type="checkbox"/>	MicroStation Essentials	Engl
<input type="checkbox"/>	MicroStation for AutoCAD Users	Engl
<input type="checkbox"/>	MicroStation for AutoCAD Users Express	Engl
<input type="checkbox"/>	MicroStation for Mining and Metal Extraction	Engl
<input type="checkbox"/>	MicroStation for AutoCAD Users Express	Engl

On-Demand

Title	Language	Gene
<input type="checkbox"/>	MicroStation Essentials Lecture Series	English VBI
<input type="checkbox"/>	MicroStation Quick Start Guide	English VBI
<input type="checkbox"/>	MicroStation Essentials	English VBI
<input type="checkbox"/>	MicroStation for AutoCAD Users	English VBI
<input type="checkbox"/>	MicroStation for Mining and Metal Extraction	English VBI
<input type="checkbox"/>	MicroStation Essentials	English VBI

Personalize Learning Path

Use this form to personalize a Learning Path. You can enable/disable specific course offerings by expanding the "Find Training" tab, and even add new course blocks into your Learning Path. Click the Help icon for more detailed instructions and a Step-By-Step guide.

Name* MicroStation Technician in a Roadway Setting
Description* 2 year onboarding program. 72 LU's. Multi-product MS, PW, InterPlot, InRoads. Live and on-demand self-study.

Learning Path Type Personal Learning Path Set as Company Learning Path

Manage Master Course List

ProjectWise User Essentials III
This course is for individuals who need to manage documents throughout a project cycle and work in the ProjectWise managed environment. It presents techniques for working in the integrated environment... [More](#)

LUUs:

Find Training (10)

Live	Title	Language	Generation	Release Label	LUUs
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	SELECTseries 2	8
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	SELECTseries 3	8
<input type="checkbox"/>	ProjectWise Client Start Up Guide	English	VBI	Base Release	4
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	Base Release	8

Displaying items 1 - 4 of 4

On-Demand	Title	Language	Generation	Release Label	LUUs	Type
<input type="checkbox"/>	Design Management Studio	English	VBI	Base Release	1	OnDemand eLearning: Lecture
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	SELECTseries 2	8	OnDemand eLearning: Hands-on
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	SELECTseries 3	8	OnDemand eLearning: Hands-on
<input type="checkbox"/>	ProjectWise Client Start Up Guide	English	VBI	Base Release	4	OnDemand eLearning: Hands-on
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	Base Release	8	OnDemand eLearning: Hands-on
<input type="checkbox"/>	ProjectWise User Essentials	English	VBI	Base Release	5	OnDemand eLearning: Hands-on

Displaying items 1 - 6 of 6

[ADD MORE](#)

MicroStation Essentials III
MicroStation Essentials is designed for the new MicroStation user and builds a solid foundation in the concepts, tools and features found in the MicroStation drawing environment. Starting with setting... [More](#)

LUUs:

This Session's Learning Path:

Here's the name and link to a short learning path that includes this session and recommended modules that you may share with your colleagues:

V8i (SELECTseries 3) OpenRoads Technology Learning Path

<http://learn.bentley.com/app/Public/ViewLearningPathDetails?lpld=104292#.UYkxZxK2r9s.email>



Demo....

Questions?

Thank you!