Bentley Institute OpenRoads Learn Conference Agenda

INDIAN WELLS, California USA December 12-14, 2018

Wednesday, December 12, 2018

Pre-Conference Breakfast

7:00 a.m. - 8:00 a.m. **Breakfast for Pre-Conference Workshop Participants** — **Conference General**

Pre-Conference - Wednesday 8:00 a.m. - 11:45 a.m.

8:00 a.m. - 11:45 a.m. **MicroStation CONNECT Edition Upgrade for CAD Managers - Configuration** — **MicroStation**

Hands-on Workshop
Intermediate - Expert

MicroStation CONNECT Edition is the newest generation of Bentleys MicroStation CAD software. This edition of MicroStation provides many exciting new features and enhancements intended to make users more productive and efficient. During this course, you will learn to install the MicroStation CONNECT Edition, gain a working knowledge of the updates made to configuration files and configuration variables, migrate an existing V8i corporate workspace to the MicroStation CONNECT Edition, learn to define Roles, learn to create WorkSpaces and WorkSets, work with updated configuration variables and much more. This course is new. It was not taught at last year's conference.

Shawn McGaffick, John Melbert, Tom Stogdill

8:00 a.m. - 11:45 a.m. **OpenBridge Modeler Workshop** — **Bridge**

Hands-on Workshop
Novice - Intermediate

This hands-on workshop will introduce you to the world of OpenBridge Modeler where you will learn how to create a model for a steelgirder bridge. This course will be taught using the OpenBridge Modeler Connect Edition software. This session is new. It was not taught at previous conferences.

Steve Willoughby, Alex Mabrich

8:00 a.m. - 11:45 a.m. **Practical Intersection Design and Modeling** — **Road, Site, & Rail Detailed Design**

Hands-on Workshop
Novice - Expert

In this course you will learn techniques to maximize OpenRoads Designer capabilities and begin design of a multi-lane, divided intersection in 3D. You will learn how to define the horizontal layout of the intersection, set elevations and cross slopes within the intersection and how to dynamically interact with the geometry to design in 3D. Once the geometry is defined, you will learn how to use the horizontal, vertical and model detailing tools to create a true, solids-based intersection model which includes pavement layers, islands, curbs and sidewalks. You will also learn how to leverage the design model for analysis, plan production and data delivery for construction. This course is new. It was not taught at last year's conference.

Scott Urbas, Chris Key, Don Lee

8:00 a.m. - 11:45 a.m. **QuickStart for OpenRoads Designer (Geometry and Corridor Modeling)** — **Road, Site, & Rail Detailed Design**

Hands-on Workshop
Novice - Intermediate

In this course, you will be creating a horizontal, vertical alignment, and modeling the corridor of a 2 lane rural road using OpenRoads Designer. You will learn how to create, edit, review and annotate geometric elements, work with existing ground terrain and aerial imagery as well as defining 2D/3D Views. You will learn how to create a Corridor, assign template drops, create dynamic cross sections and review the Corridor and 3D model. You will also learn how to use parametric constraints and point controls to vary pavement depths and shoulder widths, how to create and assign superelevation to a Corridor, and lastly how to compute quantities from the 3D model. This course is an updated version of the course taught at last year's conference.

Volaree Rendon, Christiana Holmes, Kevin McDonald

Lunch

12:00 p.m. - 1:00 p.m. **Lunch** — **Conference General**

Concurrent Sessions - Wednesday 1:00 p.m. - 2:45 p.m.

1:00 p.m. - 1:45 p.m. **3D Models of Existing Utilities, SUDA & Clash Detection** — **Survey**

Presentation
Novice - Expert

Survey data provides 3D models of existing surface data. By leveraging Bentley software it's possible to add real-world 3D representations of existing underground and above-ground utilities. See how survey data processing, SUDA and clash detection workflows can provide additional information critical to design decisions. This session is new. It was not taught at previous conferences.

Ron Brys, EnvisionCAD

1:00 p.m. - 1:45 p.m. **BIM for Bridges** — **Bridge**

Presentation
Novice - Expert

What is BIM for Bridges and how can you apply a BIM workflow to your projects today? This session is new. It was not taught at previous conferences.

Alex Mabrich

1:00 p.m. - 1:45 p.m. **Creating Custom Reports in OpenRoads Designer** — **Road, Site, & Rail Detailed Design**

Tech Talk
Intermediate - Expert

Learn how to edit style sheets and explore options to customize OpenRoads Designer reports. This session is new. It was not taught at previous conferences.

Kevin McDonald

1:00 p.m. - 1:45 p.m. **Mission Planning for Context Capture Reality Models** — **Reality Modeling**

Tech Talk
Novice - Expert

Drones are definitely cool… knowing how to use them in a reality model capture is even cooler. This session will discuss planning a mission around different structures such as Roads, Bridges, and Towers. This session is new. It was not taught at previous conferences.

Mike Barkasi

Wednesday, December 12, 2018

Concurrent Sessions - Wednesday 1:00 p.m. - 2:45 p.m.

1:00 p.m. - 1:45 p.m.
Presentation
Novice - Expert

Simply Faster: Increasing Your Productivity with OpenRoads Designer

Road, Site, & Rail Detailed Design

What is all this push to use OpenRoads Designer? I am successful with what I have been doing for years so why should I change? Today we dig in and see what OpenRoads Designer brings to the table, how it changes the playing field, and the benefits you can realize simply by upgrading. This session is new. It was not taught at previous conferences.

Dan Ahern

1:00 p.m. - 1:45 p.m.
Presentation
Novice - Expert

Understanding BIM for Civil Designers

Road, Site, & Rail Detailed Design

You've heard about it. You've asked about it. You've seen it on LinkedIn. A mysterious 3-letter acronym that seems to have permeated our industry over the last decade. B-I-M Just Google it, you'll find a mountain of information on BIM. But after wading through it all, many of us still wonder, 'What does this mean for me?', or 'Can you show me what you're talking about?' Practitioners need to see demonstrable proof of how it plays out in their day-to-day activities. Whether you're a skeptic, a believer, or just confused, join us to discuss BIM from a practical perspective. We'll ask, How does it impact me?, Has my objective changed?, Is it good for me?, Is it bad for me?, and How does this change the game? This session is an encore from a 2018 SIG presentation.

Joey LouAllen

1:00 p.m. - 2:45 p.m.
Hands-on Workshop
Novice - Intermediate

Creating Centerline Geometry

Road, Site, & Rail Detailed Design

This course teaches how to import, create, edit, and view horizontal and vertical centerline geometry. After completing this course you will have a solid understanding of not only the OpenRoads centerline geometry tools but more importantly the design intent captured by OpenRoads Designer. This course is new. It was not taught at last year's conference. This course is also offered on Friday at 10:00 a.m.

Lisa Whitson, Chris Key, Chuck Lawson

1:00 p.m. - 2:45 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart for OpenRoads Designer Drawing Production

Road, Site, & Rail Detailed Design

Learn to create and annotate cross section sheets and plan and profile sheets. You will also learn to add individual annotations to label specific location coordinates, station-offset values, elevations, and more. This course is an updated version of the course taught at last year's conference. This course is also offered on Thursday at 3:15 p.m.

Don Lee, Scott Urbas, Volaree Rendon

1:00 p.m. - 2:45 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart Using OpenRoads ConceptStation

Road, Site, & Rail Planning and Construction

This course is an introduction to the OpenRoads ConceptStation software. In this course you will learn how to create conceptual models that include roads, bridges, and ramps, with lighting, guardrail and street markings. You will also learn how to create new projects, custom templates, and modify the conceptual design. This course is an updated version of the course taught at last year's conference.

Bob Rolle, Christiana Holmes, Sherry House

1:00 p.m. - 2:45 p.m.
Hands-on Workshop
Intermediate - Expert

Simulation and Ponds

Subsurface Utilities

This course looks at how to move from a peak flow to a simulation design. We start with a storm event which models how intensity varies with time, then look at how catchment areas and the conveyance system respond to it. We'll finish by looking at using a pond to attenuate runoff rates. This course is new. It was not taught at last year's conference. The presentation titled 'Following the Rain - Time Based Simulation of Runoff and Ponding' on Wednesday at 3:15 p.m. is a lecture version of this hands-on course.

Jeff Martin, Beebe Ray, Jonathan Smith

2:00 p.m. - 2:45 p.m.
Tech Talk
Novice - Intermediate

An Introduction to OpenRoads Designer Survey

Survey

An introduction to the survey capabilities in OpenRoads Designer. This session is new. It was not taught at previous conferences.

Kevin McDonald

2:00 p.m. - 2:45 p.m.
Presentation
Intermediate - Expert

Civil Products Update - Gain Insight into the Latest Developments and Coming Releases

Road, Site, & Rail Detailed Design

Join our Product Management team for an overview of the new functionality in all of the OpenRoads and OpenRail products. You might also get a glimpse into what we are working on now so you will know what to expect in early 2019. This session is new. It was not taught at previous conferences.

Ian Rosam

2:00 p.m. - 2:45 p.m.
Presentation
Novice - Intermediate

Conveying Asset Management with OpenRoads Designer

Road, Site, & Rail Detailed Design

Items Types are a powerful feature to add attribution to your OpenRoads Designer models. Once defined these attributes can be used for reporting or as part of an asset management system. During this session you will learn to assign and use Item Types individually and in bulk using the new Asset Management tool, review data, generate reports, and save the data for an asset management system. This session is new. It was not taught at previous conferences.

Dan Ahern

2:00 p.m. - 2:45 p.m.
Tech Talk
Novice - Intermediate

Customizing the MicroStation CONNECT Edition

MicroStation

MicroStation provides for customization of the user interface. Through customization you can deliver a more personal user experience that can be tailored to a specific department, discipline, role or even an individual. This course is new. It was not taught at last year's conference.

Tom Stogdill

Wednesday, December 12, 2018

Concurrent Sessions - Wednesday 1:00 p.m. - 2:45 p.m.

2:00 p.m. - 2:45 p.m.

Presentation

Novice - Expert

OpenBridge Designer CONNECT Edition - What's new and how can I Use it Today

Bridge

Develop intelligent, 3D, parametric bridge models for your highway projects with Bentley's OpenBridge Designer. Easily manage changes with built-in, user-defined relationships among bridge components and reference DGN models throughout the lifecycle of the bridge. Learn how OpenBridge Designer's integrated workflow minimizes errors and improves efficiency. OpenBridge Designer leverages OpenRoads geometry data (terrain, alignments, profile, and superelevation) ensuring the bridge and roadway geometry are the same and that data transfers directly into LEAP Bridge and RM Bridge for detailed design and analysis. This session is new. It was not taught at previous conferences.

Steve Willoughby

2:00 p.m. - 2:45 p.m.

Presentation

Novice - Expert

What is Constructioneering?

Road, Site, & Rail Planning and Construction

We have made a lot of progress in the transportation industry over the last 30 years, yet the movement of information between disciplines, applications and people continues to be something that is plagued with inefficiencies. This presentation will discuss how to use software in a way that eliminates these inefficiencies and increases productivity. This session is new. It was not taught at previous conferences.

Mo Harmon

Break

2:45 p.m. - 3:15 p.m.

Break

Conference General

Concurrent Sessions - Wednesday 3:15 p.m. - 5:00 p.m.

3:15 p.m. - 4:00 p.m.

Tech Talk

Novice - Expert

Ask an Expert - OpenRoads Designer Modeling Q&A

Road, Site, & Rail Detailed Design

Join a Bentley expert for a problem solving session focused on OpenRoads Designer Modeling. Bring your questions because this is an interactive Q&A session, not a prepared presentation.

Chris Key

3:15 p.m. - 4:00 p.m.

Tech Talk

Novice - Expert

Ask an Expert - ProjectWise with OpenRoads Designer Q&A

ProjectWise

Join a Bentley expert for a problem solving session focused on running OpenRoads Designer in a ProjectWise environment. Bring your questions because this is an interactive Q&A session, not a prepared presentation.

JP Gauthier, Kevin McDonald

3:15 p.m. - 4:00 p.m.

Presentation

Intermediate - Expert

First Coast Expressway: Lessons Learned on the 22-mile Path to OpenRoads

Road, Site, & Rail Detailed Design

Over the past two years, we have experienced the full gambit of challenges transitioning from a traditional GEOPAK design workflow to one that fully embraces OpenRoads. Starting with a 22-mile express corridor as our pilot project may have been an ambitious first step, however, this project could not have been completed without the efficiency and benefits of the new software. The rapid pace at which design alterations were able to be incorporated along with the increased accuracy in design quickly made up for the learning curve we experienced in the initial onset of the project. We would like to share our story of how OpenRoads contributed to the successful delivery of our project including some of the lessons learned along the way that will help others navigate the same transition. We will discuss our teams naturally hesitancy to stray too far from the way things were previously done, who was responsible for the 3D model, the unexpected level of model detail we would develop over the course of this project, multi-discipline collaboration, working with sub-consultants, and more. This session is new. It was not taught at previous conferences.

Andrew Poszich, RS&H

3:15 p.m. - 4:00 p.m.

Presentation

Novice - Expert

Following the Rain: Time Based Simulation of Runoff and Ponding

Subsurface Utilities

Learn to model a storm event where rainfall intensity varies with time and evaluate how catchment areas and the conveyance system respond. We'll finish by looking at using a pond to attenuate runoff rates. This session is new. It was not taught at previous conferences. The hands-on workshop titled 'Simulation and Ponds' on Wednesday at 1:00 p.m. is a hands-on version of this presentation.

Jonathan Smith

3:15 p.m. - 4:00 p.m.

Presentation

Novice - Expert

Harnessing the Power of Civil Geometry

Road, Site, & Rail Detailed Design

Civil Geometry is a wonderfully simple collection of tools that when combined empower you to easily define intelligent, updatable, and responsive alignments and other geometry. During this session we will solve common geometry situations and explore how the Feature Definition Toggle Bar settings, Snaps, and Civil AccuDraw affect the geometry. This session is new. It was not taught at previous conferences.

Ian Rosam

3:15 p.m. - 4:00 p.m.

Presentation

Novice - Expert

How Bridge Information Modeling Is the Paradigm Shift that the Bridge Design Industry Needs Right Now

Bridge

With advances in software, more efficient workflows can replace the traditional 2D design process. After careful planning, Pennoni incorporates a Bridge Information Modeling (BrIM) approach on new bridge design projects. The approach develops a 3D design model early in the concept and proposal phase - with the added benefit that the same model can evolve with the project as it is advanced through preliminary and subsequent milestone submissions. Developing 3D design models early on has allowed engineers and designers to visualize the entire design. Pennoni engineers are also able to better identify problems during design, instead of being uncovered later in construction, where costs from unforeseen delays can escalate. Additionally, the BrIM process also acts as secondary quality control - helping to minimize errors and increase overall level of quality in the project deliverables. Through lessons learned and project case studies, attendees will learn what to consider when developing a BrIM workflow, how using a 3D based design can reduce errors and improve quality, and how models can be used to enhance visualization for the public involvement process. Pennoni's BrIM process relies on the interoperability of Bentley ConceptStation, OpenRoads, OpenBridge Modeler, ProStructures, LEAP Steel and LEAP Concrete. This session is new. It was not taught at previous conferences.

Michael Alestra, Pennoni

Wednesday, December 12, 2018

Concurrent Sessions - Wednesday 3:15 p.m. - 5:00 p.m.

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

Defining Template Components and Constraints
Road, Site, & Rail Detailed Design

This course teaches how to create templates and components for those complex project situations that require more than simply modifying existing templates. This training focuses on the hinge-to-hinge backbone portion of the template. You will learn how to create pavement slabs, pavement stripes, curbs, pavement widening matching existing pavement, and barriers. This course was not taught at last year's conference.

Kevin Jackson, Chuck Lawson, Joey LouAllen

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Intermediate - Expert

Integrating Reality Models into Civil Design
Reality Modeling

In this workshop you will work with disparate data aligning spatially referenced information to generate a working design for volume comparison between various models all within the Open Roads environment. The user will also be introduced to how the reality models are generated inside of ContextCapture by creating a basic Photogrammetric model. This session is new. It was not taught at previous conferences.

Mike Barkasi, Bob Rolle, Volaree Rendon

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

Introduction to OpenRoads Designer Concepts and Capabilities
Road, Site, & Rail Detailed Design

This course is an introduction for existing GEOPAK, InRoads, and MXROAD users as well as brand new users to the concepts and capabilities of the OpenRoads Designer software. This course provides an opportunity for existing and new users to explore many of the core features and tools of OpenRoads Designer. This course is an updated version of the course taught at last year's conference.

Christiana Holmes, Beebe Ray, Sherry House

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart for MicroStation CONNECT Edition for Existing Users
MicroStation

The MicroStation CONNECT Edition features updates to many parts of the software. These updates include the introduction of a ribbon-style graphical user interface (GUI), a relocation of the workspace settings, a new Backstage, updated tools and dialogs, Property Driven Annotation, a new Explorer replacing Project Explorer, and much more. Master these new and exciting features. This course is an updated version of the course taught at last year's conference.

John Melbert, Shawn McGaffick, Tom Stogdill

4:15 p.m. - 5:00 p.m.
Presentation
Novice - Expert

Hitting the Target: Modeling Against Subsurface Strata
Road, Site, & Rail Detailed Design

We will use the gINT tools to define sub-surfaces such as limestone or shale layers from geotechnical data and make those sub-surfaces available in OpenRoads Designer so that they can be targeted by our roadway or railbed corridor model. This session is new. It was not taught at previous conferences.

Lisa Whitson

4:15 p.m. - 5:00 p.m.
Presentation
Novice - Intermediate

I Just Need to Know… Introducing the OpenRoads Analysis Tools
Road, Site, & Rail Detailed Design

OpenRoads Designer includes various tools to review and analyze a model. Join us as we discuss a very useful set of tools to analyze terrain, geometry, water flow, ponding water, site visibility, aquaplaning, and more. This session is new. It was not taught at previous conferences.

Jeff Martin

4:15 p.m. - 5:00 p.m.
Presentation
Novice - Intermediate

Mitigating Runoff with Low Impact Developments
Subsurface Utilities

This session explores how to attenuate runoff rates using Low Impact Developments (LIDs). We will investigate the types of LIDs supported by Subsurface Utilities, how to use them, and the effect they have on runoff. This session is new. It was not taught at previous conferences.

Jonathan Smith

4:15 p.m. - 5:00 p.m.
Tech Talk
Intermediate - Expert

OBM CE - Understanding Workspace Files and Configuration
Bridge

OpenBridge Designer is delivered with a workspace structure designed to be flexible and extendable for agencies, consulting firms, and users large and small. Different organizations have different workspace needs and those needs are frequently different from project to project. The OpenBridge Designer workspace has been reconfigured to meet the needs of production environments while minimizing the need for you to be a configuration variable expert to setup your projects. This session will explain in simple terms how to use the delivered workspace, incorporate agency standards, and extend all of this with your company and project standards. This session is new. It was not taught at previous conferences.

Steve Willoughby

4:15 p.m. - 5:00 p.m.
Presentation
Intermediate - Expert

Optimizing Quantities and Costs of an Overlay Project
Road, Site, & Rail Detailed Design

Overlay projects are common, but have you been taking advantage of the overlay components and workflows in OpenRoads Designer to optimize your projects. Join us to discover how the OpenRoads Designer overlay tools and workflows can be used to model stripping/milling, leveling course, unsuitable materials and allows you optimize your design to minimize costs and put the best design out to bid. This session is new. It was not taught at previous conferences.

Don Lee

4:15 p.m. - 5:00 p.m.
Tech Talk
Novice - Expert

Shaping the Future - ConceptStation
Road, Site, & Rail Detailed Design

Join our Product Management team to provide feedback on how the ConceptStation functionality meets your needs and what new capabilities you would like to see in the future releases. Bring your ideas and suggestions because this is your opportunity to provide feedback, not a prepared presentation.

Ian Rosam

Conference Reception

5:30 p.m. - 7:30 p.m.

Reception
Conference General

Thursday, December 13, 2018

Breakfast

7:00 a.m. - 8:30 a.m. **Breakfast** — **Conference General**

Keynote - Thursday 8:30 a.m. - 9:45 p.m.

8:30 a.m. - 9:45 a.m. **The Future of Engineering Technology** — **Road, Site, & Rail Detailed Design**

Presentation
Novice - Expert

Being successful in today's world requires a deep understanding of industry trends, expertise in project requirements, and foresight of what the future may hold so that you may choose the path that aligns best with your business needs. Join Dustin Parkman, VP Civil, Modeling & Visualization, Santanu Das, SVP Design Engineering, and Adam Klatzkin, Senior Director iModel Technologies to learn about Bentley's newest CONNECT Edition releases and what they mean to you and your project teams, iModel Technologies and product acquisitions to help users advance productivity so that every project can be your best project. Hear about Bentley's vision for future product innovations including the progress made by the iModelHub Early Adopters Program (EAP) and where Bentley's Connected Data Environment is headed. See how Bentley and its strategic partners and new product acquisitions are helping advance the future of Infrastructure.

Dustin Parkman, Santanu Das, Adam Klatzkin

Break

9:45 a.m. - 10:15 a.m. **Break** — **Conference General**

Concurrent Sessions - Thursday 10:15 a.m. - 12:00 p.m.

10:15 a.m. - 11:00 a.m. **Computing Earthwork Volumes with OpenRoads Designer** — **Road, Site, & Rail Detailed Design**

Presentation
Intermediate - Expert

Earthworks are one of the largest costs to consider for any project. OpenRoads Designer's model (BIM) based approach provides significant flexibility and accuracy in quantity calculations. Come see how the OpenRoads Designer model provides cut, fill, and unsuitable material meshes which are used to report volumes in a format to meet your project requirements. You can report on these 3D volumes with conventional end area volume methods, or compute volumes more accurately with a full prismoid approach directly from the 3d model, or even "slice" up the model to report volumes segregated for staged construction, different areas of the project, or for each plan sheet. This session is new. It was not taught at previous conferences.

Dan Ahern

10:15 a.m. - 11:00 a.m. **CONNECT Advisor - You're New Best Friend for Finding Answers** — **Road, Site, & Rail Detailed Design**

Tech Talk
Novice - Expert

Need to find a training video, link to a recording, the date of an upcoming event, or connect with a colleague on a project? Meet CONNECT Advisor, Bentley's in-product search hub that provides you fast search and viewing of technical resources from the Learn Server, Bentley Communities, Product Help, and YouTube. With CONNECT Advisor, you can quickly find and view that training video, Wiki article or help from a single search and all from inside OpenRoads Designer! CONNECT Advisor is already part of your software, no need to buy or install another application. Are you taking advantage of this powerful resource? If not, join us to see what it can do and learn how you can empower yourself today. This session is an updated version of the session taught at last year's conference.

Sherry House

10:15 a.m. - 11:00 a.m. **Creating and Managing Plan, Profile, and Cross Section Drawings** — **Road, Site, & Rail Detailed Design**

Presentation
Novice - Intermediate

Producing plan drawings remains a essential part of most projects. OpenRoads Designer brings a new level of automation to the drawing production process including live updates to profiles and cross sections taken directly from the 3D model. No longer will your sheets be out of sync with the design model. Join us to learn the workflows to create these sheets and understand some the new terminology. Learn the difference between Design, Drawing, and Sheet models and how each is used. Learn how to adjust sheets, add manual notes and annotations, and more. This session is new. It was not taught at previous conferences.

Christiana Holmes

10:15 a.m. - 11:00 a.m. **New Site Design Workflows Make for Better Projects** — **Road, Site, & Rail Detailed Design**

Presentation
Novice - Expert

Learn how Bentley's new site design workflows will simplify the design workflow, helping engineers focus more on engineering and less on drafting. Our clients pay for the best designs and our goal is to do just that. But with ever changing regulations and pressure of time constraints, it can be overwhelming for professionals to deliver their best work. Come see how harnessing the power of parametrics and modeling will let you spend more time creating and reduce the drafting burden. The time saved in these new workflows will allow you to do more in the same amount of time. These workflows lets engineers deliver the best project that meets requirements. This session is new. It was not taught at previous conferences.

David Settlemyer

10:15 a.m. - 11:00 a.m. **OpenBridge Designer: I have the model…What can I do now?** — **Bridge**

Presentation
Novice - Intermediate

After creating the bridge model with OpenBridge Designer, learn how you can generate geometry and quantity reports, clearance checking, connect to Bentley's analytical software, model attribution, and create an iModel and open in Navigator CONNECT. This session is an updated version of the session taught at last year's conference.

Alex Mabrich

10:15 a.m. - 11:00 a.m. **The MicroStation CONNECT Edition - Configuration 101** — **MicroStation**

Tech Talk
Intermediate - Expert

A conversation of the new configuration levels in MicroStation, everything from System (default data), Organization, WorkSpace, WorkSet, Role and User. Learn to create and use WorkSpace, and WorkSet, templates, setting User roles and much more. This course is an updated version of the course taught at last year's conference.

Tom Stogdill

Thursday, December 13, 2018

Concurrent Sessions - Thursday 10:15 a.m. - 12:00 p.m.

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Novice - Intermediate

Creating a Reality Model
Reality Modeling

In this workshop you will learn how to build a reality model using ContextCapture from photogrammetry. Civil users will gain valuable insight into the accuracy level provided from these models. The user will learn to include ground control on a captured roadway project and access detailed reports attesting to accuracy. Learn what it takes to generate a survey accurate reality model for use in civil design projects. This session is new. It was not taught at previous conferences.

Mike Barkasi, Kevin Jackson, Bob Rolle

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Novice - Intermediate

Creating and Manipulating the Corridor
Road, Site, & Rail Detailed Design

In this course, you will create a roadway corridor and then explore the many tools and techniques to edit and manipulate the corridor. This course is an updated version of the course taught at last year's conference.

Volaree Rendon, Don Lee, Lisa Whitson

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Novice - Intermediate

Evaluating and Laying Out a Storm Network
Subsurface Utilities

We will start by using Review and Evaluation tools to explore a utilities-rich file. You will master being able to describe the engineering of any utilities file. Then we will lay out inlets, pipes and catchments to model a storm network. This course is an updated version of the course taught at last year's conference.

Jeff Martin, Beebe Ray, Jonathan Smith

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Intermediate - Expert

Templates Triggers and Switches
Road, Site, & Rail Detailed Design

Learn how to create templates that use null points with component display rules. These act as triggers (or switches) to display and un-display parts of your template when linear geometry is added as corridor reference elements to a corridor. This course is an updated version of the course taught at last year's conference.

Scott Urbas, Mike Wilson, Joey LouAllen

11:15 a.m. - 12:00 p.m.
Tech Talk
Novice - Intermediate

Ask an Expert - Survey Q&A
Survey

Join a Bentley expert for a problem solving session focused on Survey. Bring your questions because this is an interactive Q&A session, not a prepared presentation.

Kevin McDonald

11:15 a.m. - 12:00 p.m.
Presentation
Novice - Intermediate

Introducing the MicroStation CONNECT Edition
MicroStation

The MicroStation CONNECT Edition features many updates to the user interface. These updates include the introduction of a ribbon-style graphical user interface (GUI), a relocation of the workspace settings such as Preferences and Configuration, and more. This course is an updated version of the course taught at last year's conference.

John Melbert

11:15 a.m. - 12:00 p.m.
Presentation
Intermediate - Expert

ProConcrete Workflow with OpenBridge Designer
Bridge

This lecture shows how ProStructures interacts with OpenBridge Designer for rebar detailing and quantity calculations. This session is new. It was not taught at previous conferences.

Alex Mabrich

11:15 a.m. - 12:00 p.m.
Tech Talk
Intermediate - Expert

Reporting on Elements in the MicroStation CONNECT Edition
MicroStation

Learn to create reports, leverage Item Types, or any MicroStation element in the design file. Quantify MicroStation data, create and save reports and place them as tables in the design. This course is new. It was not taught at last year's conference.

Shawn McGaffick

11:15 a.m. - 12:00 p.m.
Presentation
Intermediate - Expert

Under the Hood: Setting up Sheets in OpenRoads Designer
Road, Site, & Rail Detailed Design

Calling all administrators, you don't want to miss this session where we take a deep dive into configuring the drawing seed files that make creating Plan, Profile, and Cross Section sheets a breeze for your production teams. A little detail work up front provides your production team a select and go solution to matching your standards. This session is an updated version of the session taught at last year's conference.

Chuck Lawson

11:15 a.m. - 12:00 p.m.
Presentation
Novice - Expert

Using 3D Modeling or BIM on a Project
Road, Site, & Rail Detailed Design

See a real-world example of the advantage that 3D design modeling using OpenRoads technology can bring to any project phase. The project is a high-profile multi-level road project in the heart of Austin, Tx. I will review three different scenarios. First, how a 3D design model can be used to help win project. Second, how a 3D design model can help with getting a project approval from the public in the schematic phase. Third, how a 3D design model can help with the PS&E process all the way through construction. OpenRoads, Descartes and LumenRT were used on this project. This session is new. It was not taught at previous conferences.

Marc Phan, RTG

Lunch

12:00 p.m. - 1:00 p.m.

Lunch
Conference General

Concurrent Sessions - Thursday 1:00 p.m. - 2:45 p.m.

1:00 p.m. - 1:45 p.m.
Tech Talk
Novice - Expert

Ask an Expert - OpenRoads Designer Drawing Production Q&A
Road, Site, & Rail Detailed Design

Join a Bentley expert for a problem solving session focused on OpenRoads Designer Drawing Production. Bring your questions because this is an interactive Q&A session, not a prepared presentation.

Chris Key

Thursday, December 13, 2018

Concurrent Sessions - Thursday 1:00 p.m. - 2:45 p.m.

1:00 p.m. - 1:45 p.m.

Presentation

Novice - Expert

ConceptStation from a User's Perspective

Road, Site, & Rail Planning and Construction

I will share my experience using OpenRoads ConceptStation on a project in the early stages of the proposal. The RFP had not yet come out and we had very limited design information. We chose to use ConceptStation to produce a preliminary 3D model with hopes of improving early decision making. The presentation will include discussion of the techniques used, the resulting models, and lessons learned. This session is new. It was not taught at previous conferences.

Kacie Patterson, Parsons

1:00 p.m. - 1:45 p.m.

Presentation

Novice - Expert

How we Reduced Estimated Construction Cost by 30% Using OpenRoads Tools

Road, Site, & Rail Detailed Design

Using OpenRoads Technology, Mead & Hunt, Inc. was able to cut the estimated construction cost of a railroad grade separation in Marion County, Ohio from over $9.8 million to $6.6 million. This project forged ahead of many users' comfort levels and the agency standards in place at the time. We will discuss how Subsurface Utility Engineering was utilized for drainage and utilities, Open Bridge Modeler was used for designing Mechanically Stabilized Earth (MSE) walls, and solids modeling was used to create abutment wingwalls, allowing for a more accurate model and quantities, as well as for utility conflict resolution and grading. The biggest result attained may be the change in mindset for the design team. Many had only worked in 2D and working with 3D seemed daunting and unnecessary for transportation work. However, the benefits seen daily with 3D modeling on this project are something that we now expect to use on all projects. This session is new. It was not taught at previous conferences.

Dan Barnhart, Mead & Hunt, Alexandra Monda, Mead & Hunt

1:00 p.m. - 1:45 p.m.

Presentation

Novice - Expert

iModel 2.0 and the iModel Hub

iModel 2.0 Platform

Bentley introduced the iModel in 2009 and the iModel Hub at our 2017 Year in Infrastructure event in Singapore. This session will scratch the surface of how iModel 2.0 and the iModel Hub will impact Bentley's transportation solution and our users digital delivery workflow. This session is new. It was not taught at previous conferences.

Mo Harmon

1:00 p.m. - 1:45 p.m.

Tech Talk

Novice - Expert

Introducing Bentley Navigator 10.2

iModel 2.0 Platform

Join us to discuss the new Navigator 10.2, which is the replacement for Bentley Navigator and OpenRoads Navigator. We'll discuss the features as well as how it facilitate a paperless workflow. This session is new. It was not taught at previous conferences. A similar version of this Tech Talk is being given as a Presentation on Friday at 9:00 a.m.

Bob Rolle

1:00 p.m. - 1:45 p.m.

Presentation

Intermediate - Expert

Under the Hood: Configuring Annotation in OpenRoads Designer

Road, Site, & Rail Detailed Design

Calling all administrators, you don't want to miss this session where we open the hood and learn how to setup annotation for plan, profile, and cross section views. Setup the software once and all of your team will be sure to produce drawings that match your standards. This session is an updated version of the session taught at last year's conference.

Chuck Lawson

1:00 p.m. - 2:45 p.m.

Hands-on Workshop

Novice - Intermediate

Defining Template End Conditions

Road, Site, & Rail Detailed Design

This course teaches how to create and make major modifications to template end conditions. This training focuses on the side slopes connecting the template hinge to the tie down point. You will learn how to create end conditions with multiple cut and fill slope solutions, cut slopes with a ditch adjacent to the hinge, walls, and forced right-of-way solutions. This course was not taught at last year's conference.

Joey LouAllen, Jeff Martin, Kevin Jackson

1:00 p.m. - 2:45 p.m.

Hands-on Workshop

Intermediate - Expert

OBM to LEAP Bridge Concrete and Back

Bridge

The newest version of OpenBridge Modeler supports exchanging geometric changes and analytical information between LEAP Bridge Concrete and OpenBridge Modeler. This session will focus on the interaction between the two products as well as new OpenBridge Modeler reporting capabilities and the drawing generation tools. This session is new. It was not taught at previous conferences.

Steve Willoughby, Alex Mabrich

1:00 p.m. - 2:45 p.m.

Hands-on Workshop

Novice - Intermediate

QuickStart for Terrain Display

Road, Site, & Rail Detailed Design

Learn how to display terrain model features including the boundary, triangles, and contours using feature definitions, and how to modify the default display parameters. You will also learn how to label terrain contours, spot elevations and slopes. This course is new. It was not taught at last year's conference.

Sherry House, Christiana Holmes, Lisa Whitson

1:00 p.m. - 2:45 p.m.

Hands-on Workshop

Intermediate - Expert

Stop Creating Inefficient Models - It's Time to Learn the Power of Parametric Modeling

MicroStation

The old saying, 'It's never done until it's done' comes to mind when working with 3D designs. Models need to be altered and edited throughout the design process as quickly and easily as possible. In the past, you may have re-created models rather than edit an existing model as needed. Now, with the MicroStation CONNECT Edition, learn to create reusable models and cells that can be dynamically adjusted and sized with parametric dimensions and constraints. This course is new. A lecture with similar content was taught at last year's conference.

Shawn McGaffick, John Melbert, Tom Stogdill

2:00 p.m. - 2:45 p.m.

Presentation

Novice - Expert

Adding Value to Rail Projects with OpenRail Designer

Road, Site, & Rail Detailed Design

Join us to explore how OpenRail Designer extends OpenRoads Designer with rail specific tools including turnout and crossing geometry, regression, cant, 3D rail design, and sleeper modeling. We will also look at workflows to model mainline tracks, yards, and tunnels and hear about the latest software enhancements and plans for the future. You will leave understanding why you want to use OpenRail Designer on your next rail project. This session is new. It was not taught at previous conferences.

Ian Rosam

Thursday, December 13, 2018

Concurrent Sessions - Thursday 1:00 p.m. - 2:45 p.m.

2:00 p.m. - 2:45 p.m.
Tech Talk
Intermediate - Expert

Ask an Expert - Setting up Annotation in OpenRoads Designer Q&A

Road, Site, & Rail Detailed Design

Join a Bentley expert for a problem solving session focused on Setting Up Annotation in OpenRoads Designer. Bring your questions because this is an interactive Q&A session, not a prepared presentation.

Beebe Ray

2:00 p.m. - 2:45 p.m.
Tech Talk
Novice - Intermediate

How to Capture Data to Create a Reality Model

Reality Modeling

This talk will discuss planning the capture and purposing the data to achieve the best results for the given project along with the different outputs for the Reality Model and the uses for these. This session is new. It was not taught at previous conferences.

Mike Barkasi

2:00 p.m. - 2:45 p.m.
Presentation
Novice - Expert

Modeling a Complete Intersection in Minutes

Road, Site, & Rail Planning and Construction

Being able to quickly model roads, rails, intersections, roundabouts, bridges and more is critical early in a project so that multiple alternatives can be explored and compared to find the optimum solution. OpenRoads ConceptStation brings you exactly that ability. During this session you will see ConceptStation at work modeling a multi-road, multi-ramp intersection complete with bridges, pavement striping, lighting, and quantity estimates in just a few minutes. The final product being a fully rendered model ready for sharing with project stakeholders. This session is new. It was not taught at previous conferences.

Bob Rolle

2:00 p.m. - 2:45 p.m.
Presentation
Novice - Expert

Pond Design: Layout and Hydraulics

Subsurface Utilities

This session looks at the integration of the spatial and hydraulic aspects of pond design, and in particular how a terrain model can be used for the spatial part, providing a stage-storage curve to feed the hydraulic part. This session is new. It was not taught at previous conferences.

Jonathan Smith

2:00 p.m. - 2:45 p.m.
Presentation
Intermediate - Expert

Surveyors: What we Actually do. Bridging the Gap and Creating a Better Working Relationship Between Engineers and Surveyors

Survey

The relationship between engineers and surveyors can have a significant impact on a project. At times surveyors need more direction and input from the engineer to create a better final product. Also, engineers are not always aware of what the field process entails or what tools surveyors have at their disposal. During this session we will discuss how Mead & Hunt utilizes OpenRoads to streamline this process. Hear how we inform and educate field crews about what is expected before any field work is performed. The result is that most data collected in the field can be downloaded and processed very quickly, helping keep projects on time and under budget. The process of educating staff of everyday challenges is important to any firm for success. This session is new. It was not taught at previous conferences.

Justin Duffie, Mead & Hunt

Break

2:45 p.m. - 3:15 p.m.

Break

Conference General

Concurrent Sessions - Thursday 3:15 p.m. - 5:00 p.m.

3:15 p.m. - 4:00 p.m.
Tech Talk
Novice - Expert

Ask an Expert - Subsurface Utilities Q&A

Subsurface Utilities

Join a Bentley expert for a problem solving session focused on Subsurface Utilities. Bring your questions because this is an interactive Q&A session, not a prepared presentation.

Beebe Ray

3:15 p.m. - 4:00 p.m.
Tech Talk
Novice - Expert

Checking Sight Visibility - How do I Know my Design is Safe and Meets Standards?

Road, Site, & Rail Detailed Design

As designers we all need to verify that the geometry meets one or more site distance requirements. Do you check this along the vertical alignment? How do you know if you truly have clear site lines? Does the horizontal curvature affect the site lines? Does a raised median affect the site lines? In this session we will explore the OpenRoads Designer Site Visibility tool and learn how it can help you evaluate your models. We will discuss the various options and settings behind the command leaving you will all the skills you need to check site visibility on your projects. This session is new. It was not taught at previous conferences.

Dan Ahern

3:15 p.m. - 4:00 p.m.
Presentation
Novice - Intermediate

Clash Detection - Your Chance to be a Hero

Road, Site, & Rail Detailed Design

Somebody else checked for construction conflicts, right? How much are you willing to bet? Conflict Detection is easy: in an hour's training you can rule out oversights that can blow up schedules and budgets. They may not be your utilities, but it's your project: protect it! Any 3D solid (i.e., the engineering model) can be checked for hard and soft conflicts. You can even check to see what a construction trench will conflict. Don't let a costly conflict slip through the cracks. Ensure that your project is clear. Be the hero! This session is new. It was not taught at previous conferences.

Jeff Martin

3:15 p.m. - 4:00 p.m.
Presentation
Novice - Expert

MicroStation CONNECT Edition: What's New and Improved?

MicroStation

Whether you're using V8i or an older release of MicroStation CONNECT Edition, every new update is packed full of valuable new capabilities that can help you save time and improve your design workflows. Get a tour of all of the very latest major enhancements and learn how you can get started using them immediately, whether everyone in your organization has upgraded to CONNECT Edition or not. This course is new. It was not taught at last year's conference.

John Melbert

Thursday, December 13, 2018

Concurrent Sessions - Thursday 3:15 p.m. - 5:00 p.m.

3:15 p.m. - 4:00 p.m.
Presentation
Intermediate - Expert

Plans Production with OpenBridge Designer
Bridge

During this session we will discuss all of the details, tips, and tricks to setup the drawing seeds used by the new OpenBridge Designer and how to create drawings of the bridge plan/profile, superstructure and substructure. This session is new. It was not taught at previous conferences.

Steve Willoughby

3:15 p.m. - 4:00 p.m.
Presentation
Novice - Expert

Where Are They Now? How DOT's are Preparing for Innovation and Change in the Industry
Road, Site, & Rail Detailed Design

Updated for 2018. Every Day Counts, Tiger Grants, STIC funding, Design Build, and Contractors are all examples of industry influencers driving innovation in transportation. With these activities underway, where are the DOT's today? How are your organizations preparing for change? This session will highlight many of the innovations being planned and adopted across the US DOT's. This session is an updated version of the session taught at last year's conference.

Mo Harmon

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart for OpenRail Designer
Road, Site, & Rail Detailed Design

In this course you will learn how to perform horizontal geometry regression, define turnouts, define geometry for a siding, and model the rail corridor including the siding and a tunnel section. This course is new. It was not taught at last year's conference.

Lisa Whitson, Joey LouAllen, Bob Rolle

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart for OpenRoads Designer Drawing Production
Road, Site, & Rail Detailed Design

Learn to create and annotate cross section sheets and plan and profile sheets. You will also learn to add individual annotations to label specific location coordinates, station-offset values, elevations, and more. This course is an updated version of the course taught at last year's conference. This course is also offered on Wednesday at 1:00 p.m.

Don Lee, Chuck Lawson, Sherry House

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart for Survey
Survey

An introduction to surveys in OpenRoads Designer. Most projects begin and end with survey. This course will get you started processing data files, reviewing the resulting data and performing simple edits. We will also discuss the project tree, how the terrain is linked to the processed data and how to produce a final package for delivery. This course is new. It was not taught at last year's conference.

Kevin Jackson, Kevin McDonald, Volaree Rendon

3:15 p.m. - 5:00 p.m.
Hands-on Workshop
Novice - Intermediate

Using and Defining Superelevation
Road, Site, & Rail Detailed Design

In this course, you will learn how to create, edit and review superelevation information using the tools provided in OpenRoads Designer. You will learn about the Superelevation XML preference file that controls how superelevation is calculated. You will learn how to create superelevation sections, lanes and transitions and how to apply the superelevation transitions to your corridor. You will also learn how to review and edit superelevation data. This course is new. It was not taught at last year's conference.

Scott Urbas, Mike Wilson, Chris Key

4:15 p.m. - 5:00 p.m.
Presentation
Novice - Expert

BrIM Analytical Update
Bridge

This session will provide a review of the updates and enhancements to LEAP Bridge Concrete, LEAP Bridge Steel and RM Bridge that were released this year. This session is an updated version of the session taught at last year's conference.

Alex Mabrich

4:15 p.m. - 5:00 p.m.
Presentation
Novice - Intermediate

Designing Dry Subsurface Utilities
Subsurface Utilities

Subsurface Utilities can be used to design both dry and wet utilities. In this session we will look at how the tools can be used for designing ducting and chambers for an intelligent traffic system. This session is new. It was not taught at previous conferences.

Jonathan Smith

4:15 p.m. - 5:00 p.m.
Tech Talk
Intermediate - Expert

Introduction to Parametrics and Constraints
MicroStation

Models need to be altered and edited throughout the design process as quickly and easily as possible. In the past, you may have re-created models rather than edit an existing model as needed. Now, with the MicroStation CONNECT Edition, learn to create reusable models and cells that can be dynamically adjusted and sized with parametric dimensions and constraints. This course is new. It was not taught at last year's conference.

Shawn McGaffick

4:15 p.m. - 5:00 p.m.
Presentation
Novice - Expert

Seeing is Believing: Getting the Most Out of OpenRoads Designer Visualization
Road, Site, & Rail Detailed Design

Powerful visualization capabilities are built into the OpenRoads, OpenRail, and OpenBridge software making a fully rendered version of your model just a few clicks away. During this session you will learn how to produce cinematic quality visuals and animate models in real time. You don't need to be a visualization specialist with LumenRT Designer! Its time you take a look at this powerful capability built into the applications you are already using. This session is an updated version of the session taught at last year's conference.

Christiana Holmes

4:15 p.m. - 5:00 p.m.
Tech Talk
Novice - Expert

Shaping the Future - Drawing Production
Road, Site, & Rail Detailed Design

Join our Product Management team to provide feedback on how the Drawing Production functionality meets your needs and what new capabilities you would like to see in the future releases. Bring your ideas and suggestions because this is your opportunity to provide feedback, not a prepared presentation.

Dan Ahern, Ian Rosam

Thursday, December 13, 2018

Concurrent Sessions - Thursday 3:15 p.m. - 5:00 p.m.

4:15 p.m. - 5:00 p.m.

Presentation
Intermediate - Expert

Using Manage workspace with Open Roads Designer

ProjectWise

This presentation discusses how to create Managed Workspaces in ProjectWise using workspaces and standards created with OpenRoads Designer to enforce standards, and client deliverables. This session is an updated version of the session taught at last year's conference.

JP Gauthier

Friday, December 14, 2018

Breakfast

7:00 a.m. - 8:00 a.m.

Breakfast

Conference General

Concurrent Sessions - Friday 8:00 a.m. - 9:45 a.m.

8:00 a.m. - 8:45 a.m.

Tech Talk
Novice - Intermediate

Combining Aerial Imagery and Ground Imagery in a Reality Model

Reality Modeling

Here we use a real world example of a city block captured with drones and ground imagery combined to generate a realistic model to be used in a detailed conceptual design integration with OpenRoads Designer. This session is new. It was not taught at previous conferences.

Mike Barkasi

8:00 a.m. - 8:45 a.m.

Presentation
Novice - Intermediate

Exploring gINT and gINT Civil Tools

Road, Site, & Rail Detailed Design

Explore how gINT and gINT Civil Tools will help you end the paper trail and begin managing your geotechnical subsurface data electronically. This session is an updated version of the session taught at last year's conference.

Lisa Whitson

8:00 a.m. - 8:45 a.m.

Presentation
Novice - Expert

Modeling Tips, Tricks, and Techniques

Road, Site, & Rail Detailed Design

Is the push for complete 3D design on your mind? Come see tips and tricks to bring your models to the next level. Look at techniques that save time and enrich your models. Some techniques are quite simple and have been around for some time while others are new capabilities like circular components and other items that Bentley has been "cooking" up. This session is new. It was not taught at previous conferences.

Chris Key

8:00 a.m. - 8:45 a.m.

Presentation
Intermediate - Expert

OpenRoads Designer Software Development Kit (SDK)

Road, Site, & Rail Detailed Design

Learn how the Software Development Kit (SDK) allows you to create custom applications that work with OpenRoads Designer.

Mike Wilson

8:00 a.m. - 8:45 a.m.

Presentation
Novice - Expert

OpenRoads Geometry - Where are my COGO Tools?

Road, Site, & Rail Detailed Design

Discover how to accomplish your coordinate geometry needs with Civil AccuDraw and civil geometry tools. Explore techniques to locate points, formulate parcels, and construct controlling geometry. This session is new. It was not taught at previous conferences.

Dan Ahern

8:00 a.m. - 8:45 a.m.

Tech Talk
Novice - Expert

Shaping the Future - Site Modeling

Road, Site, & Rail Detailed Design

Join our Product Management team to provide feedback on how the Site Modeling functionality meets your needs and what new capabilities you would like to see in the future releases. Bring your ideas and suggestions because this is your opportunity to provide feedback, not a prepared presentation.

David Settlemyer

8:00 a.m. - 9:45 a.m.

Hands-on Workshop
Intermediate - Expert

Beyond Centerline Geometry

Road, Site, & Rail Detailed Design

Pavement Edges are particularly important: they are required in Plan Sheets and they streamline modeling corridors (a single template can follow edges wherever they meander). In this class you create smart, editable, obedient edges, turn lanes, tapers, and driveways. You will see how OpenRoads remembers the relationships with which you built the geometry and honors it when the design changes. OpenRoads Remembers your Design Intent. This course is an updated version of the course taught at last year's conference.

Don Lee, Beebe Ray, Jeff Martin

8:00 a.m. - 9:45 a.m.

Hands-on Workshop
Intermediate - Expert

Creating Custom Line Styles

MicroStation

MicroStation's custom line styles can be used to add additional definition and clarity to a design, displaying sophisticated graphics, by simply selecting a line style and drawing a line. This includes both 2D and 3D design environments. Custom line styles can range from quite simple, displaying nothing more than a series dashes, to quite sophisticated displays of embedded graphics, 3D geometry, and raster images. In this course you will learn to create custom line styles that contain graphics and text, 3D line styles, and raster line styles. This course is new. It was not taught at last year's conference.

Tom Stogdill, John Melbert, Shawn McGaffick

8:00 a.m. - 9:45 a.m.

Hands-on Workshop
Intermediate - Expert

OBM to LEAP Bridge Steel and Back

Bridge

The newest version of OpenBridge Modeler supports exchanging geometric changes and analytical information between LEAP Bridge Steel and OpenBridge Modeler. This session will focus on the interaction between the two products as well as new OpenBridge Modeler reporting capabilities and the drawing generation tools. This session is new. It was not taught at previous conferences.

Steve Willoughby, Alex Mabrich

Friday, December 14, 2018

Concurrent Sessions - Friday 8:00 a.m. - 9:45 a.m.

8:00 a.m. - 9:45 a.m.
Hands-on Workshop
Novice - Intermediate

Using and Editing Terrain Models
Road, Site, & Rail Detailed Design

This course reviews how to display terrain models to view different source and computed features including the boundary, triangles, and contours; and teaches how to display the terrain model thematic height illustrations. You will also learn how to create terrain models by importing graphic elements, identify and fix terrain model problems, and combine multiple terrain models together. This course is new. It was not taught at last year's conference.

Sherry House, Bob Rolle

9:00 a.m. - 9:45 a.m.
Tech Talk
Intermediate - Expert

Ask an Export - Moving SMD/XMLs or XINs to OpenRoads Designer Survey
Survey

We will discuss setting up survey in OpenRoads Designer from your V8i based SMD, XML, and XIN files. This session is new. It was not taught at previous conferences.

Kevin McDonald

9:00 a.m. - 9:45 a.m.
Presentation
Novice - Expert

Introducing Bentley Navigator 10.2
iModel 2.0 Platform

Bentley Navigator and OpenRoads Navigator have been combined and enhanced to become Bentley Navigator 10.2. Join us to explore the capabilities of this powerful new application as well as how it can be used to facilitate a paperless plans workflow. This session is new. It was not taught at previous conferences. A similar version of this Presentation is begin given as a Tech Talk on Thursday at 1:00 p.m.

Mo Harmon

9:00 a.m. - 9:45 a.m.
Presentation
Intermediate - Expert

Modeling ADA Compliant Ramps
Road, Site, & Rail Detailed Design

Join us to learn how OpenRoads Designer allows you to analyze, design, and model curb ramps. We will discuss how the combination of reality capture technology and OpenRoads Designer modeling can be used to evaluate existing curb ramps for regulatory compliance as well as stream-lining the design of ramps to meet legal requirements. The session will cover a practical example that addresses a real-world design and construction issue including the need to evaluate, re-design, and re-construct non-compliant curb ramps, using ContextCapture to model existing curb ramps, and using OpenRoads Designer to design and model compliant curb ramps. This session is an encore from a 2018 SIG presentation.

Kevin Jackson

9:00 a.m. - 9:45 a.m.
Presentation
Intermediate - Expert

Montrose Interchange and the Bentley Advantage
Road, Site, & Rail Detailed Design

SMEC South Africa (Pty) Ltd was appointed to develop and present three design options for a grade-separated interchange at the Montrose Pass along national route N4 in Mpumalanga, South Africa. SMEC provided three feasible and safe grade-separated interchange options by pioneering forward with technological innovations rarely seen within the South African consulting and construction industry using Bentley's innovative software solutions. Given the short timeframe, difficult topography, and limited budget to conduct costly land surveys, SMEC utilized controlled drone-captured photography to create background imagery and a 3D reality model of the site using Bentley's ContextCapture. OpenRoads Designer was then used to optioneer various concepts at a rapid pace, saving dozens of hours when modelling alternative alignments and interchange configurations. Finally, LumenRT was used to render scenes and animations that brought life to the presentation of the models and surrounding terrain. This session is new. It was not taught at previous conferences.

Warren McLachlan, SMEC South Africa

9:00 a.m. - 9:45 a.m.
Tech Talk
Novice - Expert

Shaping the Future - Civil Geometry
Road, Site, & Rail Detailed Design

Join our Product Management team to provide feedback on how the Civil Geometry functionality meets your needs and what new capabilities you would like to see in the future releases. Bring your ideas and suggestions because this is your opportunity to provide feedback, not a prepared presentation.

Dan Ahern, Ian Rosam

9:00 a.m. - 9:45 a.m.
Presentation
Intermediate - Expert

Under the Hood: Configuring Subsurface Utility Annotation in OpenRoads Designer
Road, Site, & Rail Detailed Design

Calling all administrators, during this session we get under the 'bonnet' and learn how to setup annotation for subsurface utilities. Set these up once and all of your team will be sure to produce drawings that match your standards. This session is new. It was not taught at previous conferences.

Chuck Lawson, Jonathan Smith

Break

9:45 a.m. - 10:15 a.m.

Break
Conference General

Concurrent Sessions - Friday 10:15 a.m. - 12:00 p.m.

10:15 a.m. - 11:00 a.m.
Presentation
Intermediate - Expert

Customizing Superelevation Rule Files
Road, Site, & Rail Detailed Design

We will explore the extensive flexibility and capability of the OpenRoads Designer superelevation Rule file. You will learn to edit the XML file through the product interface and will come away knowing how to setup common capabilities like tables and equations as well as advanced capabilities using Custom Key Station and Runtime Variables. After attending this session you will have the knowledge to setup superelevation rules to meet your engineering requirements. This session is new. It was not taught at previous conferences.

Dan Ahern

10:15 a.m. - 11:00 a.m.
Presentation
Novice - Expert

Managing Civil Geometry from Simple to Complex
Road, Site, & Rail Detailed Design

OpenRoads geometry is very powerful but can get complex. However, once you understand all of the tools and relationships you will be on your way to being a geometry master. In this session we explore tools and techniques that make editing and managing even complex geometry easy. We will explore tools such as Copy, Append, Table Editing, Simplify, Complex Redefine, and more. This session is new. It was not taught at previous conferences.

Ian Rosam

Friday, December 14, 2018

Concurrent Sessions - Friday 10:15 a.m. - 12:00 p.m.

10:15 a.m. - 11:00 a.m.
Tech Talk
Novice - Intermediate

OBM and RM Bridge for Segmental Bridges
Bridge

Join us in this tech talk in which a segmental bridge will be modeled with construction stages. Then, send the bridge for analytical calculations into RM Bridge for the calculation of dead and live loads and definition of a tendon layout configuration. This session is new. It was not taught at previous conferences.

Alex Mabrich

10:15 a.m. - 11:00 a.m.
Tech Talk
Novice - Expert

Shaping the Future - Subsurface Utilities
Subsurface Utilities

Join our Product Management team to provide feedback on how the Subsurface Utilities functionality meets your needs and what new capabilities you would like to see in the future releases. Bring your ideas and suggestions because this is your opportunity to provide feedback, not a prepared presentation.

Jonathan Smith

10:15 a.m. - 11:00 a.m.
Presentation
Novice - Expert

Using iModel Hub and Bentley Navigator for Quality Control
iModel 2.0 Platform

As the industry migrates towards a 3D digital delivery process, Quality Control has to be an integral part of the process. This session will share how users will be able to utilize iModel Hub and Navigator to perform design reviews against 3D models. This session is new. It was not taught at previous conferences.

Mo Harmon

10:15 a.m. - 11:00 a.m.
Presentation
Novice - Expert

Using Reality Models in Conceptual Design
Reality Modeling

Here we use a real-world example of a city block captured with drones and ground imagery combined to generate a realistic model to be used in a detailed conceptual design integration with OpenRoads Designer. This session is new. It was not taught at previous conferences.

Blaine Buenger, FOTH

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Novice - Intermediate

Creating Centerline Geometry
Road, Site, & Rail Detailed Design

This course teaches how to import, create, edit, and view horizontal and vertical centerline geometry. After completing this course you will have a solid understanding of not only the OpenRoads centerline geometry tools but more importantly the design intent captured by OpenRoads Designer. This course is new. It was not taught at last year's conference. This course is also offered on Friday at 10:00 a.m.

Jeff Martin, Beebe Ray, Christiana Holmes

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Intermediate - Expert

Quantities and Earthwork
Road, Site, & Rail Detailed Design

In this course, you will learn various tools and methods to extract and compute quantities and end area volumes from the corridor model, and much more. This course is an updated version of the course taught at last year's conference.

Scott Urbas, Chris Key, Kevin Jackson

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Novice - Intermediate

QuickStart Using gINT Civil Tools
Road, Site, & Rail Detailed Design

gINT Civil tools is used to load geotechnical data in 2D models (mapping workflow for drilling plan creation and preliminary studies) as well as in 3D for subsurface interpretation and BIM workflows. In this course you will learn to connect to a gINT project file and display various aspects of the borehole data. This course is an updated version of the course taught at last year's conference.

Lisa Whitson, Kevin McDonald, Bob Rolle

10:15 a.m. - 12:00 p.m.
Hands-on Workshop
Intermediate - Expert

Train the Trainer Master Class: MicroStation CONNECT Edition QuickStart for Existing Users
MicroStation

As a trainer, you are able to help learners within your organization get up to speed on the new MicroStation CONNECT Edition. You know that MicroStation CONNECT Edition features many new updates. These include the introduction of a ribbon-style Graphical User Interface (GUI), Configuration, a new Backstage, updated Tools and Dialogs, Property Driven Annotation, Item Types, Named Boundaries, Sheet Indexes, Reports, Tables, Display Rules, a new Explorer and more. Learn to master these new and exciting features not just as a user, but as an instructor of them, mastering not just the content but delivery as well. This course is new. It was not taught at last year's conference.

John Melbert, Shawn McGaffick, Tom Stogdill

11:15 a.m. - 12:00 p.m.
Presentation
Novice - Intermediate

Civil and Reality Modeling Integration
Reality Modeling

This lecture will focus on the accuracy of Reality Models and also the integration and use in a civil workflow using the most recent developments in 3sm and civil integration. This session is new. It was not taught at previous conferences.

Mike Barkasi

11:15 a.m. - 12:00 p.m.
Presentation
Novice - Intermediate

Designing and Extending Culverts
Subsurface Utilities

This session explores a road widening project where an existing culvert must be extended and the watercourse realigned. We will consider a broken-back culvert, and ways to model the shape of the existing watercourse. This session is new. It was not taught at previous conferences.

Jonathan Smith

11:15 a.m. - 12:00 p.m.
Presentation
Novice - Expert

Field to Office using Navigator and Issues Resolution
ProjectWise

This presentation will review a issue resolution workflow using i-models created in OpenRoads Designer or OpenBridge Modeler. Issues are marked up in the field and assigned to a designer to review. The designer addresses the issue and provides comments before passing the markup back to the field for verification and documentation photos from a mobile device. This session is an updated version of the session taught at last year's conference.

JP Gauthier

Friday, December 14, 2018

Concurrent Sessions - Friday 10:15 a.m. - 12:00 p.m.

11:15 a.m. - 12:00 p.m.

Presentation

Intermediate - Expert

Seismic Design using Bentley Bridge Software. Response Spectra in LBC and LBS

Bridge

Join us to review the latest development in LEAP Bridge Concrete and LEAP Bridge Steel that incorporates Multi-modal seismic methodology using the Response Spectra formulation and response spectra, time history and pushover analysis with RM Bridge. This session is new. It was not taught at previous conferences.

Alex Mabrich

11:15 a.m. - 12:00 p.m.

Tech Talk

Novice - Expert

Shaping the Future - Rail

Road, Site, & Rail Detailed Design

Join our Product Management team to provide feedback on how the OpenRail functionality meets your needs and what new capabilities you would like to see in the future releases. Bring your ideas and suggestions because this is your opportunity to provide feedback, not a prepared presentation.

Ian Rosam

11:15 a.m. - 12:00 p.m.

Tech Talk

Intermediate - Expert

Under the Hood: Survey Annotation

Survey

During this session we will discuss how to setup annotation for survey workflows. This session is new. It was not taught at previous conferences.

Chuck Lawson