

ACCELERATE Civil Conference Agenda

Orlando, Florida USA March 16-18, 2020

Monday, March 16, 2020

Breakfast		
7:00 a.m. - 8:30 a.m.	Breakfast	Conference General
Product Update - Monday 8:30 a.m. - 9:45 p.m.		
8:30 a.m. - 9:45 a.m.	Keynote: Advancing BIM Through Digital Twins	Keynote
Presentation <i>Novice - Expert</i>	It's time to embrace digital twins. Context and chronology are redefining the digital experience for users and transforming static 3D BIM models into living, evergreen digital twins. A timeline of change makes possible 4D design review and 4D design insights, helping the industry to reduce cost, scheduling, and quality problems during design and construction. Join Dustin Parkman and guest speakers to see the latest in Digital Twin technologies and relevant projects around the globe that are accelerating digital transformation with the help of Digital Twins. <i>Dustin Parkman</i>	
Break		
9:45 a.m. - 10:15 a.m.	Break	Conference General
Concurrent Sessions - Monday 10:15 a.m. - 12:00 p.m.		
10:15 a.m. - 11:00 a.m.	An Introduction to OpenSite Designer	Site Modeling
Presentation <i>Novice - Intermediate</i>	Learn about Bentley Systems newest site planning and design software, OpenSite Designer. Discover the power of automated and optimized tools to see how it will shorten your design times and deliver better projects. <i>David Settlemyer</i>	
10:15 a.m. - 11:00 a.m.	Corridor Side Slope Design and Modeling	Road Modeling
Presentation <i>Intermediate</i>	This session focuses on practical ways to take advantage of the side slope modeling tools in OpenRoads Designer. Watch as we discuss and demonstrate various end condition capabilities in context of real-world examples. You'll see examples of targeting 2D and 3D project features such as ROW and retaining walls, as well as matching slopes between corridors. In this session you will learn: (1)How to use various methods to target model elements and control end conditions, (2)How to tie end conditions to model elements (such as walls, abutments, and special ditches), and (3)To use target aliasing, end condition exceptions, and other end condition methods to create side slopes. <i>Joey LouAllen</i>	
10:15 a.m. - 11:00 a.m.	Introduction to Bentley's New SYNCHRO Construction Portfolio	Digital Twins
Presentation <i>Novice - Expert</i>	Review the overall construction portfolio now branded as SYNCHRO and hear about the new products that are being introduced at YII and how Bentley is delivering one integrated platform for construction that connects resources, data and workflows to drive construction efficiency from planning through construction operations and closeout. Learn how Bentley will address civil infrastructure, industrial, and building projects. <i>JP Gauthier</i>	
10:15 a.m. - 11:00 a.m.	Migration SS4 GEOPAK and InRoads Workspaces to OpenRoads Designer	Workspace
Tech Talk <i>Novice - Expert</i>	Join Bentley consultants for tips, tricks, and discussion about migrating SS4 workspaces to OpenRoads Designer. <i>Don Lee, Chuck Lawson</i>	
10:15 a.m. - 11:00 a.m.	OpenBridge Designer: The Practical Solution to Merge Physical and Analytical 3D Bridge Models and Gain Productivity with Less Errors	Bridge
Presentation <i>Novice - Expert</i>	Discover the advantages of working in a model centric workflow, by creating a single physical 3D model for your bridge project and use it for analytical calculations and to produce 2D drawings and construction review. <i>Alex Mabrich</i>	
10:15 a.m. - 11:00 a.m.	Shaping the Future - Civil Geometry	Geometry
Roundtable <i>Novice - Expert</i>	Join our product management team to provide feedback concerning how you use the civil geometry tools as well as what 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. <i>Ian Rosam, Dan Ahern</i>	
10:15 a.m. - 12:00 p.m.	Creating and Harvesting Quantities	Quantities, Assets, and Reporting
Hands-on Workshop <i>Intermediate</i>	In every project quantities must be calculated and completed. This hands-on course will let you master creating and attaching Item Types, creating Picklists and attaching the Item Types to various types of geometry. You will learn to run a variety of reports to harvest that data, be it culverts, guardrail, traffic/light poles, ADA ramps, or landscaping reports. Once those reports are run, master placing them as Tables using Table Seeds. Learn to edit existing Tables, and to add useful functions like table breaks, plus much more. <i>Shawn McGaffick, Holly Herring, Tom Stogdill</i>	
10:15 a.m. - 12:00 p.m.	QuickStart - Geometry	Geometry
Hands-on Workshop <i>Novice</i>	In this course, you will be creating a horizontal and vertical alignment using the OpenRoads Designer Geometry tools. You will learn how to create, edit, review and annotate geometric elements. This course will also cover working with existing ground terrain and aerial imagery as well as defining 2D/3D Views. <i>Volaree Rendon, Beebe Ray, Claudio Cristallini</i>	

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

10:15 a.m. - 12:00 p.m.	Reality Modeling- From Capture to Model Hands-on Workshop <i>Novice - Intermediate</i> In this workshop the users will learn how to capture photos based on a set of requirements. After the photos have been captured the user will learn the steps required to generate a georeferenced model from these images. <i>Mike Barkasi, Chris Collins, Kevin Jackson</i>	Reality Modeling
10:15 a.m. - 12:00 p.m.	Using and Editing Terrain Models Hands-on Workshop <i>Novice</i> In this course you will review terrain model feature display and learn how to create thematic height displays. 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. <i>Sherry House, Sonya Pieterse, Tim Wright</i>	Terrain
11:15 a.m. - 12:00 p.m.	Cross Section Annotation Presentation <i>Intermediate</i> An in-depth discussion of what is possible with cross section annotations and how to set them up to meet your requirements. This session is part presentation and part interactive Q&A. <i>Chuck Lawson</i>	Drawing Production and Deliverables
11:15 a.m. - 12:00 p.m.	Don't Work for Your Templates, Let Your Templates Work for You! User Presentation <i>Intermediate</i> Learn how to create a more powerful pavement template that reduces work downstream. Simple little changes can increase your productivity. Grading shouldn't be a manual effort. See how to create a dynamic template that can be used to quickly develop everything from ditches to walls. Templates don't have to be a scary process to develop if you just follow some of these simple tips and tricks. <i>Kevin O'Conner</i>	Road Modeling
11:15 a.m. - 12:00 p.m.	Grading Design and Modeling at Bridge Abutments Presentation <i>Intermediate - Expert</i> In this session, we will demonstrate tools and techniques for modeling side slopes and grading around bridge abutments. You will learn how to define vertical elevations of 2D horizontal geometry, as well as use linear templates and end conditions to tie down slopes. Working between the multiple views of OpenRoads Designer, you will gain insight on viewing, analyzing, and modifying design elements, helping you incorporate bridge grading into your project design models. <i>Scott Urbas</i>	Road Modeling
11:15 a.m. - 12:00 p.m.	Shaping the Future - Design Review Tech Talk <i>Novice - Expert</i> Join our product management team to provide feedback concerning how you perform design review as well as what 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. <i>Taylor Gilmore</i>	Digital Twins
11:15 a.m. - 12:00 p.m.	Shaping the Future - Drawing Production and Annotation Roundtable <i>Novice - Expert</i> Join our product management team to provide feedback concerning how you use the drawing production and annotation tools as well as what 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. <i>Ian Rosam, Dan Ahern</i>	Drawing Production and Deliverables
11:15 a.m. - 12:00 p.m.	The Outcome of Having a 3D Bridge Physical Model: Accurate Geometry Reports: Haunch Calculations, Deck Elevations, Pier Reports, Quantities Presentation <i>Novice - Expert</i> An accurate 3D model allows the bridge engineer to extract valuable information directly from the model. Deck elevations, haunch calculations, beams seat elevations are just a click-away within OpenBridge Designer. <i>Steve Willoughby</i>	Bridge

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

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

1:00 p.m. - 1:45 p.m.	3D Design: Real World Benefits and Challenges User Presentation <i>Novice - Expert</i> This presentation will demonstrate benefits and challenges of OpenBridge Modeler used on real projects and pursuits. It will include projects with construction phasing, coordination with roadway, drainage and utilities, and bridges with complex geometry. <i>David Lutz</i>	Bridge
1:00 p.m. - 1:45 p.m.	Bringing Data into OpenRoads Designer Presentation <i>Novice - Expert</i> Join us for a discussion of what type of project data can be imported or referenced into OpenRoads Designer and how it can be used. Discussion will include bringing in project data from Bentley's GEOPAK, InRoads, and MX formats and other sources such as text files, XML, IFC, Civil 3D, and 12d. <i>Volaree Rendon</i>	Geometry
1:00 p.m. - 1:45 p.m.	MicroStation and OpenRoads Designer User Accreditation Programs Tech Talk <i>Novice - Expert</i> Join us to learn about the NEW User Accreditation Programs for MicroStation CONNECT Edition and OpenRoads Designer CONNECT Edition. Discover how to earn your accreditation with an overview of the program requirements as well as the recommended and required training courses to learn the skills necessary to complete the accreditation projects. See the Wednesday sessions to register for an accreditation workshop. <i>Shawn McGaffick, Sherry House</i>	Accreditation

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

1:00 p.m. - 1:45 p.m.	Shaping the Future - Drainage and Utilities	Drainage and Utilities
Roundtable <i>Novice - Expert</i>	Join our product management team to provide feedback concerning how you use the drainage and utilities toolset as well as what 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. <i>Jonathan Smith</i>	
1:00 p.m. - 1:45 p.m.	What's the skinny on Digital Twins?	Digital Twins
Presentation <i>Novice - Expert</i>	Digital transformation is happening in our industry now! What role will Digital Twins and other emerging technologies play in this transformation? In this lecture you will learn the 101 on what a Digital Twin is and how Digital Twin technologies can help infrastructure practitioners — and their network of collaborators — make better decisions, save time, reduce costs through automation and insights. <i>Dustin Parkman</i>	
1:00 p.m. - 1:45 p.m.	Workflow Evolution: Learning to Embrace 3D Design	Road Modeling
User Presentation <i>Novice - Expert</i>	For the past several years, RS&H has been moving away from the traditional 2D workflow and into the realm of 3D design. We will share our story of how we have embraced 3D design and the lessons we have learned along the way. We will discuss the workflow, mindset, communication, and commitment that is necessary to achieve success. <i>Rachel Wright</i>	
1:00 p.m. - 2:45 p.m.	Creating and Editing Centerline Geometry	Geometry
Hands-on Workshop <i>Intermediate</i>	In this course, you will learn how to create and edit horizontal and vertical geometry using various tools and techniques. You will be defining the horizontal and vertical geometry for River Rd. You will also learn how to make changes to the River Rd. geometry and how to make changes to the existing geometry for Mountain Highway and Pike Rd. <i>Chris Key, Beebe Ray, Jeff Martin</i>	
1:00 p.m. - 2:45 p.m.	Defining Template Components and Constraints	Road Modeling
Hands-on Workshop <i>Novice</i>	This course teaches how to create templates and components for those 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. <i>Dan Sheldon, Holly Herring, Sonya Pieterse</i>	
1:00 p.m. - 2:45 p.m.	Editing Survey Features	Survey
Hands-on Workshop <i>Intermediate</i>	This course is going to focus on how to edit survey linear features once they have been imported and mapped into the design file. You will learn how to correct erroneous link codes and field codes with the many tools available in the Survey workflow. You will also learn how to convert survey features to point list features which allows for easy editing of the survey data. <i>Tim Wright, Kevin Jackson, Kevin McDonald</i>	
1:00 p.m. - 2:45 p.m.	Setting up Drawing Sheet Seed Definitions	Drawing Production and Deliverables
Hands-on Workshop <i>Intermediate - Expert</i>	This course teaches you how to create seed definitions that drive the plan, profile, and cross section sheet creation tools. After completing this course you should have a good understanding of how to set up the sheet seeds and how you can set them up for your company or agency. A presentation is also offered on this same topic. <i>Chris Collins, Don Lee, Chuck Lawson</i>	
2:00 p.m. - 2:45 p.m.	Benefiting from OpenSite in Roadway Projects	Site Modeling
Presentation <i>Novice - Intermediate</i>	Road projects are not just the corridor. Learn how using the new Site Layout toolset will help create sites along with your roadway. <i>David Settlemyer</i>	
2:00 p.m. - 2:45 p.m.	Digital Engineering with OpenRoads Designer as part of a Multi-Disciplinary Major Road Infrastructure project in Eastern Australia	General
User Presentation <i>Novice - Expert</i>	Using the WestConnex 3B-Rozelle Interchange project for context, this presentation intends to highlight the challenges and lessons learned transitioning into digital engineering & project delivery. We'll discuss using OpenRoads Designer, the interactions with different software platforms, and the difficulties attempting to satisfy multiple and different deliverables at the same time in a transitional BIM environment. <i>Mark Shamoun</i>	
2:00 p.m. - 2:45 p.m.	MicroStation CONNECT Edition: What's New and Improved?	General
Tech Talk <i>Novice - Expert</i>	Whether you're new to MicroStation CONNECT Edition or been using it for years, 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 the 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. <i>Shawn McGaffick</i>	
2:00 p.m. - 2:45 p.m.	OpenBridge Roadmap and Analytical Update	Bridge
Presentation <i>Novice - Expert</i>	Let's review our bridge development roadmap and the latest analytical enhancements in our bridge solution. <i>Alex Mabrich</i>	

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

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

Use iTwin Design Review to Share and Collaborate on Design Models

Digital Twins

Presentation
Novice - Intermediate

iTwin Design Review is an exciting new tool that allows designers to easily share and collaborate directly from their design models. Purpose-built for how you work, our unique, hybrid 2D/3D design review environment enables you to conduct faster review sessions on design work-in-progress, while minimizing intermediate steps, artifacts, and ad hoc workarounds. Come learn how to coordinate faster reviews and eliminate intermediate steps with iTwin Design Review.

Taylor Gilmore

Break

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

Break

Conference General

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

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

Creating Plan, Profile and Cross Section Sheets Along a Road

Drawing Production and Deliverables

Presentation
Novice

Sheet creation is a time consuming process that can cause inconsistencies and delays in the delivery of projects. Join us to learn to use OpenRoads Designer's automated sheet layout and annotation capabilities. We will discuss workflows and how to organize files and references to maximize the benefits of these tools.

Holly Herring

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

Digital Twins: Maximizing the Use of Your Digital Assets

Digital Twins

User Presentation
Novice - Expert

At HDR we are focused on getting the most out of our data. Our company wide model based delivery has resulted in a vast collection of digital assets. Working with Bentley HDR is working to create Digital Twins that can be queried to provide both their active and future projects with the ability to make data informed decisions. In this class we will discuss how this process has worked to date and how at HDR we see this working in the future.

Connor Christian

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

Harnessing the Power of OpenRoads Rules and Relationships - What Happens When Things Change?

Road Modeling

Presentation
Intermediate - Expert

OpenRoads Designer rules and relationships enable automatic model updating when geometry and corridors change. This is a powerful feature of OpenRoads Designer that ensures the design model is always up-to-date. But what happens when you need to replace a substantial part of the geometry? What if you don't want a rule created. How do you force a template to start at a physical position even if the up station geometry or stationing changes? During this presentation we will explore the rules and relationships between civil elements to better understand what updates automatically. We will share tips and techniques that affect the rules that are created and how they are evaluated.

Kevin Jackson

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

Rail Geometry

Rail Geometry and Modeling

Tech Talk
Intermediate

Join us to explore how OpenRail Designer extends OpenRoads Designer with Rail specific geometric tools that allow you to do what is required for rail design. We will briefly discuss rail specific spiral types, geometry connector, complex redefine for rail modifications, event points for turnout placement as well as how Free, Float and Fixed element placement concepts are accomplished in OpenRail Designer.

Sonya Pieterse, Dan Sheldon

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

Setting up Drawing Sheet Seed Definition

Drawing Production and Deliverables

Presentation
Intermediate

Learn how to create seed definitions that drive the Plan, Profile, and Cross Section sheet creation tools. After completing this course you should have a good understanding of how to set up the sheet seeds and how you can set them up for your company or agency. A hands-on workshop is also offered on this same topic.

Chuck Lawson

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

Shaping the Future - Rail

Rail Geometry and Modeling

Roundtable
Novice - Expert

Join our Product Management team to provide feedback on how the Rail 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 sit in a prepared presentation.

Ian Rosam

3:15 p.m. - 5:00 p.m.

Beyond Centerline Geometry

Geometry

Hands-on Workshop
Intermediate

Pavement edges are particularly important: they are required in plan sheets and the 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 also taught on Wednesday at 10:15.

Jeff Martin, Sherry House, Tim Wright

3:15 p.m. - 5:00 p.m.

Creating and Manipulating the Corridor

Road Modeling

Hands-on Workshop
Intermediate

In this course, you will create a roadway corridor and then explore the many tools and techniques to edit and manipulate the corridor. We will take a look at how to add multiple templates drops along the corridor as you encounter intersections, driveways and turn lanes and how to edit and copy template drops in lieu of creating a new template. We will show how to make the corridor follow edge of pavement geometry using point controls and corridor references. You will learn how the secondary alignment tool aids in changing the direction of template processing as it applies to point controls and corridor reference elements. You will also learn how to use parametric constraints to override default template values for pavement depths, curb heights, shoulder slopes and ditch widths and how to use the clipping reference tool to clip out a portion of your corridor. We will take a look at how corridors interact with other corridors by learning how to use target aliasing to seek corridors. And finally we will show how to create end condition exceptions in areas that require a different type of end condition solution. This course is also taught on Wednesday at 1:00.

Volaree Rendon, Chris Collins, Scott Urbas

Monday, March 16, 2020

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

3:15 p.m. - 5:00 p.m.

Hands-on Workshop
Novice - Expert

OBD Workflows and Modeling Bridges Workshop

Learn how to model a 3D prestressed girder bridge and a steel I-girder bridge, perform analytical calculations and generate geometry and quantities reports in this fast-paced workshop.

Alex Mabrich, Steve Willoughby

Bridge

3:15 p.m. - 5:00 p.m.

Hands-on Workshop
Novice - Intermediate

Using and Defining Superelevation

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.

Don Lee, Chris Key, Kevin McDonald

Road Modeling

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

Presentation
Novice

Annotating Title Blocks and the Sheet Index

Learn how to annotate title block information for both ProjectWise and non-ProjectWise workflows from the Sheet Index. You will further learn to use the Sheet Index to control sheet numbers, organize sheet sets, the order of sheets, sheet properties, and how to publish project deliverables.

Shawn McGaffick, JP Gauthier

Drawing Production and Deliverables

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

Tech Talk
Novice - Intermediate

Customizing the Ribbon Menu and Interface

Working in OpenRoads Designer or MicroStation CONNECT Edition, we often find ourselves adapting our workflows to fit the application, rather than the application fitting our workflows. Time is often lost remembering where to locate required tools and navigating between tool locations in various Workflows. Learn to create a custom user experience by creating custom workflows, ribbon tabs, context menus, tools, tool boxes and gain an understanding of named expressions.

Tom Stogdill

General

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

Presentation
Novice - Intermediate

Integrating Multiple Workspaces in Your Environment

OpenRoads 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 OpenRoads 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 discuss how this approach can be used to integrate multiple DOT or other workspaces into your environment.

Dan Ahern

Workspace

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

User Presentation
Novice - Expert

Migrating to OpenRoads Designer: Prepare for the Journey

If your organization is considering migrating to OpenRoads Designer, or are in the process of migrating, and you have the following questions: When is the right time to migrate? Where do we start? How much effort will it take? What do we need to do? (and more importantly, what not to do!) Come and hear firsthand from The Foth Companies Infrastructure Team about their journey into OpenRoads Designer. The Foth team will share successes, hardships, expectations, best practices, what to watch out for, and offer some statistics on effort spent and achieved ROI.

Jack Riesenberg, Michael Lincoln

Migrating to OpenRoads Designer

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

Roundtable
Novice - Expert

Shaping the Future - Site Modeling

Join our product management team to provide feedback concerning how you use the site modeling tools as well as what 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

Site Modeling

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

Presentation
Novice - Intermediate

What Everyone Should Know about Civil AccuDraw

Every quality toolbox includes specialty tools that simplify specific tasks. You don't need specialty tools all the time, but they offer substantial benefit when used purposefully. Civil AccuDraw is one of those tools. During this session we will discuss situations where Civil AccuDraw brings efficiencies that can be difficult with other tools.

Claudio Cristallini

Geometry

Conference Reception

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

Reception

Conference General

Tuesday, March 17, 2020

Breakfast

7:00 a.m. - 8:30 a.m.

Breakfast

Conference General

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

8:30 a.m. - 9:45 a.m.

Presentation
Novice - Expert

Bentley Corporate and Civil Products Update

Join us for an update on Bentley's business and vision including the newest acquisitions. We will continue with a civil product update where you will gain insight into the latest developments in recent releases and an look at the roadmap of what's planned in coming releases of OpenRoads, OpenRail, OpenSite, OpenBridge. You might also get a glimpse into what we are working on now.

Ian Rosam, Dustin Parkman, Lee Tanase

Keynote

Break

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

Break

Conference General

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

10:15 a.m. - 11:00 a.m.

Commercial Site Design and Modeling

Site Modeling

Presentation

Novice - Intermediate

Learn how to create commercial, industrial and other non-residential projects using the automated layout tools. This session will walk through the process of starting a project through layout and into optimized grading. Learn how to manipulate grading features for more detailed models.

David Settlemyer

10:15 a.m. - 11:00 a.m.

Developing 2D Bridge Plans and Details using 3D Information Models

Bridge

User Presentation

Novice - Expert

Until recently, 2D plans have been the fundamental method of conveying design intent on engineering projects. Plans are how projects get designed, bid, built, and recorded. While current initiatives are underway to replace plan submissions with 3D models, presentable 2D plans remain a strict requirement for plan submission; this requirement of delivering 2D plans has been a limiting factor in the broader adoption of 3D modelling for bridge design. To bridge this gap, a solution is to use 3D models to directly develop 2D plan details. When the model updates, the plans update, resulting in plans that are truly representative of the 3D model, and the model remains as the primary source of truth. Through lessons learned and project case studies, attendees will learn what to consider when developing 2D bridge plans and details from 3D models, best practices, and tips and tricks. Workflows in OpenBridge Modeler and ProStructures will be discussed.

Michael Alestra

10:15 a.m. - 11:00 a.m.

Efficiently Installing the Software for Large Groups

General

Tech Talk

Novice - Expert

How to install the software, silent installs, etc.

Kevin McDonald

10:15 a.m. - 11:00 a.m.

Enabling 3D Design Review and Collaboration with iTwin Design Review

Digital Twins

Presentation

Novice - Intermediate

For years engineers have been designing in 3D but, with a lack of viable review tools, reviewers have been forced to review and certify on 2D sheets. Time allocation for design reviews continues to be compressed, leaving less and less time for design review preparation and duplication of design artifacts. Learn how iTwin Design Review enables a simplified, 2D/3D hybrid workflow for design review and collaboration. See how project teams can leverage a Digital Twin to easily share design context and provide review feedback on design deliverables through review, collaboration and quality tools.

Taylor Gilmore

10:15 a.m. - 11:00 a.m.

Shaping the Future - Attribution with Item Types and Quantities

Quantities, Assets, and Reporting

Roundtable

Novice - Expert

Join our product management team to provide feedback concerning how you use the item types and earthwork quantities tools as well as what 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

10:15 a.m. - 11:00 a.m.

Taking Control of how Models are Presented in the View

Visualization

Presentation

Novice - Expert

The MicroStation CONNECT Edition contains a variety of tools and features that may be used to enhance the display of your 3D models. This includes tools developed specifically for use within civil design projects. This session will show how to use tools such as adding rendering materials and lighting. It will also discuss using the populate, stencil, and traffic animation tools and the 3D Warehouse to enhance your 3D civil drawings.

Tom Stogdill

10:15 a.m. - 12:00 p.m.

Defining Template End Conditions

Road Modeling

Hands-on Workshop

Novice

This hands-on training teaches how to create and make 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.

Chuck Lawson, Volaree Rendon, Sherry House

10:15 a.m. - 12:00 p.m.

Drainage Layout

Drainage and Utilities

Hands-on Workshop

Novice

Learn the core urban drainage design functionality for laying out inlets, pipes and drainage areas. Learn how to Compute and show results.

Beebe Ray, Jeff Martin, Jonathan Smith

10:15 a.m. - 12:00 p.m.

QuickStart - Corridor Modeling for Rail

Rail Geometry and Modeling

Hands-on Workshop

Novice

In this course you will learn how to create a 3D model of the rail corridor using the corridor modeling tools. The rail corridor is a single track with concrete sleepers. The existing terrain and geometry will be provided as a starting point.

Dan Sheldon, Sonya Pieterse, Joey LouAllen

10:15 a.m. - 12:00 p.m.

Right of Way Fundamentals

Geometry

Hands-on Workshop

Intermediate

The objective of this course is to teach tools and techniques that can be used for developing Right of Way Plans on roadway projects. In this course you will learn how to establish the existing right of way centerline, how to create the existing right of way lines and how to create an existing property parcel from record data. You will also learn how to create proposed right of way lines, a proposed parcel, and legal description. And lastly, you learn how to create right of way plan sheets and annotation.

Scott Urbas, Kevin Jackson, Tim Wright

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

11:15 a.m. - 12:00 p.m.	Bentley Communities Forum - OpenRoads Geometry Q&A	Geometry
Roundtable <i>Novice - Expert</i>	Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encouraged to share their questions, ideas and suggested solutions. This session is focused on OpenRoads Designer Geometry. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation. <i>Chris Key, Ian Rosam</i>	
11:15 a.m. - 12:00 p.m.	Bentley SYNCHRO Construction extending the value of the Digital Twin from Design	Digital Twins
Presentation <i>Novice - Expert</i>	SYNCHRO is a complete portfolio of integrated software and services for digital construction management. Together, they enable construction firms to win projects, deliver them more efficiently, get paid, while improving the use of digital twin to optimize decision-making, resourcing, and profitability. See how a model from OpenRoads Designer can positively impact Construction and extend the value of the digital twin for the project. <i>JP Gauthier</i>	
11:15 a.m. - 12:00 p.m.	Get Personal with your Bridge: Intelligent user-defined 3D Functional Components	Bridge
Presentation <i>Novice - Expert</i>	Many bridges have some special components (a unique abutment, an architectural pier, etc.) that need to be modeled. OpenBridge Designer's functional components modeling capability provides complete freedom to create such objects and save them in libraries for future use. <i>Alex Mabrich</i>	
11:15 a.m. - 12:00 p.m.	Get the Most Out of Your Survey Annotations	Survey
User Presentation <i>Novice - Expert</i>	Using annotation groups and text favorites in OpenRoads, we can quickly and correctly annotate features directly from the raw survey data. In this session, learn how to annotate culvert inverts, show flow arrows, and other clever uses of survey annotations. <i>Bob Mecham</i>	
11:15 a.m. - 12:00 p.m.	OpenRoads SignCAD - The Ultimate Sign Design Software	Geometry
Tech Talk <i>Novice - Intermediate</i>	OpenRoads SignCAD is the industry leader in defining all types of signs ready for your OpenRoads visualization models, traffic detail plans, shop drawings, and manufacturing cutters. Built in Federal and State standards make defining panels, route markers, arrows, fonts, graphics and layouts quickly and efficient. Join us to learn about the power of OpenRoads SignCAD. <i>Dan Ahern</i>	
11:15 a.m. - 12:00 p.m.	Residential Site Design and Modeling	Site Modeling
Presentation <i>Novice - Intermediate</i>	Newly added parceling tools give OpenSite Designer users tools to quickly and easily create lots for residential design. Learn how to create and customize residential and commercial projects that need parcel creation. Learn how to use auto-labeling to add dynamic lot annotations and summary tables to your projects. <i>David Settlemyer</i>	

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

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

1:00 p.m. - 1:45 p.m.	Fundamentals of Templates and Corridor Modeling	Road Modeling
Presentation <i>Novice</i>	Join us to learn the basics of creating corridor templates in OpenRoads Designer. In this session we will explain and demonstrate how to use OpenRoads Designer to build pavement sections and side slopes. We will discuss component creation, constraints, targets, and end conditions. Don't miss this opportunity to get started effectively using templates in OpenRoads Designer. <i>Chris Key</i>	
1:00 p.m. - 1:45 p.m.	Harnessing the Power of Civil Geometry	Geometry
Presentation <i>Intermediate - Expert</i>	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. Civil Geometry is also the core of Civil Cells. 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. <i>Don Lee</i>	
1:00 p.m. - 1:45 p.m.	Shaping the Future - Corridor Modeling	Road Modeling
Roundtable <i>Novice - Expert</i>	Join our product management team to provide feedback concerning how you use the corridor modeling tools as well as what 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. <i>Ian Rosam, Dan Ahern</i>	
1:00 p.m. - 1:45 p.m.	The Twists and Turns of Superelevation	Road Modeling
Tech Talk <i>Novice - Intermediate</i>	Learn and discuss how to set up superelevation to get the results you need. <i>Kevin Jackson</i>	
1:00 p.m. - 1:45 p.m.	Using Survey Data to Create Existing Terrain	Terrain
Presentation <i>Novice - Intermediate</i>	We will import raw survey data, correct errors, and refine the data in order to generate breaklines, spot shots, and planimetric linework. Ultimately, we will deliver a comprehensive, well-defined existing ground terrain as well as a survey map including linework, contours, and annotation. <i>Kevin McDonald</i>	

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

1:00 p.m. - 2:45 p.m.	Channels and Culverts	Drainage and Utilities
Hands-on Workshop <i>Intermediate</i>	Ditches and Culverts are the backbone of rural drainage design. Learn how lay out compute and evaluate here. <i>Jeff Martin, Beebe Ray, Jonathan Smith</i>	
1:00 p.m. - 2:45 p.m.	Drawing Production – Creating Plan and Profile Sheets	Drawing Production and Deliverables
Hands-on Workshop <i>Novice - Intermediate</i>	In this course, you will learn how to create plan and profile sheets. You will learn how to create Named Boundaries that will be used to generate various plan and profile sheets. You will also learn about drawing models and sheet models that are used during the sheet creation process. And lastly, you will learn how to add individual annotations to label specific location coordinates, station-offset values, elevations, and more. This course is also taught on Wednesday at 1:00. <i>Chuck Lawson, Sonya Pieterse, Tom Stogdill</i>	
1:00 p.m. - 2:45 p.m.	Functional Component Workshop - Pier Modeling	Bridge
Hands-on Workshop <i>Novice - Expert</i>	2D and 3D constraints for parametric cells, best practices for 3D solid modeling are taught in this workshop so you can create your custom pier in the most efficient manner. <i>Alex Mabrich, Steve Willoughby</i>	
1:00 p.m. - 2:45 p.m.	QuickStart - Corridor Modeling for Road	Road Modeling
Hands-on Workshop <i>Novice</i>	In this course, you will be creating a Corridor and 3D model for a 2 lane rural road. 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. This course will also cover how to create and assign superelevation to a Corridor. And lastly, you will learn how to compute quantities from the 3D model. <i>Claudio Cristallini, Chris Collins, Dan Sheldon</i>	
2:00 p.m. - 2:45 p.m.	Advanced Corridor Topics	Road Modeling
User Presentation <i>Novice - Expert</i>	You have created your corridor, now what? We will look at a number of the tools that are offered to refine and enhance corridors exploring considerations and potential uses. From point controls to parametric constraints these tools give us greater flexibility in our linear design efforts, and used wisely, can often reduce the number of needed templates/template drops. <i>Steven Litzau</i>	
2:00 p.m. - 2:45 p.m.	An Introduction to OpenRoads Designer Survey	Survey
Presentation <i>Novice</i>	An introduction to the survey capabilities in OpenRoads Designer. <i>Tim Wright</i>	
2:00 p.m. - 2:45 p.m.	Bentley Communities Forum - OpenRoads Modeling Q&A	Road Modeling
Roundtable <i>Novice - Expert</i>	Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encouraged to share their questions, ideas and suggested solutions. This session is focused on OpenRoads Designer Modeling. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation. <i>Chris Key, Holly Herring</i>	
2:00 p.m. - 2:45 p.m.	Creating Tables and Reports	Quantities, Assets, and Reporting
Presentation <i>Intermediate</i>	Learn how to quantify item types, edit items, use existing picklists, create various reports, spreadsheets and tables in the design. Learn to edit existing tables and to add useful functions like table breaks, plus much more. <i>Shawn McGaffick</i>	
2:00 p.m. - 2:45 p.m.	Efficiently Model Walls and Side Slopes with OpenRoads Designer	Road Modeling
Tech Talk <i>Intermediate</i>	Learn how OpenRoads Designer enhances your ability to lay out and model retaining walls. During this session we will demonstrate practical examples showing how to use intelligent end conditions to include retaining walls along your projects. You will learn about the powerful capabilities that allow you to model walls and side slopes while adhering to engineering requirements. You will also see how to extract useful data, such as profiles and quantities, from the modeled walls and workflows to help you take advantage of modeling on your projects. <i>Scott Urbas</i>	
2:00 p.m. - 2:45 p.m.	Extended Attribution with Item Types using OpenRoads Designer	Quantities, Assets, and Reporting
Presentation <i>Intermediate</i>	Learn to use item types to add custom attribution to OpenRoads objects. Custom attributes can be used for reporting and to extend data for other downstream uses such as construction, bid quantities, and asset management. We will explore how to setup item types, pick lists, lookup tables, and calculated expressions. We will also discuss when and why the OpenRoads Asset Manager tool should be used to supplement the core item types capabilities. <i>Dan Ahern</i>	
Break		
2:45 p.m. - 3:15 p.m.	Break	Conference General

3:15 p.m. - 4:00 p.m.	3D BIM Model Deliverables	Digital Twins
Presentation <i>Intermediate - Expert</i>	Join us to discuss sharing OpenRoads terrain, geometry, models and deliverables. We will explore options including iModels, IFC, and other relevant formats. <i>Ian Rosam</i>	
3:15 p.m. - 4:00 p.m.	A DOT's Perspective of Implementing OpenRoads Designer	Migrating to OpenRoads Designer
User Presentation <i>Novice - Expert</i>	KYTC is one of the, if not the first DOT to implement OpenRoads Designer (ORD) into production. KYTC moved beyond piloting ORD with all new design starts for it's internal designers July 1st, 2019 and for it's consulting firms beginning October 1st, 2019. In only 8 months, KYTC staff were able to integrate the workspace and resource files that Bentley translated into their next CAD Standards, pilot a few projects and implement ORD. Along the way, KYTC was able to learn and document a few lessons for those that are still looking at implementing at their DOT. <i>Kevin Martin</i>	
3:15 p.m. - 4:00 p.m.	Bentley Communities Forum - OpenRoads Workspaces Q&A	Workspace
Roundtable <i>Novice - Expert</i>	Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encouraged to share their questions, ideas and suggested solutions. This session is focused on OpenRoads Designer Workspaces. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation. <i>Holly Herring, Chuck Lawson</i>	
3:15 p.m. - 4:00 p.m.	Creating Plan Sheets for non-linear areas	Drawing Production and Deliverables
Presentation <i>Novice</i>	Learn how to create plan sheets for non-linear areas such as site development, intersections, and parking areas. <i>David Settlemyer</i>	
3:15 p.m. - 4:00 p.m.	Draining a Road Surface Effectively	Drainage and Utilities
Presentation <i>Novice - Intermediate</i>	In this presentation we will look at how to optimize the position of inlets to effectively drain the road surface, including checking that spread width constraints have been adhered to along the gutter, and not just at the inlet. <i>Jonathan Smith</i>	
3:15 p.m. - 4:00 p.m.	Mission Planning for Reality Capture to Ortho Photos	Reality Modeling
Tech Talk <i>Intermediate</i>	In this tech Talk we will identify how to best plan for various types of capture. The user will get an understanding of the software needs and how the capture techniques will be best suited to meet these needs. <i>Mike Barkasi</i>	
3:15 p.m. - 5:00 p.m.	Detailing for your Bridge: Rebar Placement and Quantities in OpenBridge Designer	Bridge
Hands-on Workshop <i>Novice - Expert</i>	Placement of rebar detailing and computing quantities is more automated than ever using ProConcrete that is now part of OpenBridge Designer. <i>Alex Mabrich, Steve Willoughby</i>	
3:15 p.m. - 5:00 p.m.	Drawing Production – Creating Cross Section Sheets	Drawing Production and Deliverables
Hands-on Workshop <i>Novice - Intermediate</i>	In this course, you will learn how to create and annotate cross section sheets. You will learn how to create Named Boundaries that will be used to generate various cross section sheets. You will also learn about drawing models and sheet models that are used during the sheet creation process. And lastly, you will learn how to add individual annotations to label station-offset values, elevations, and more. This workshop is also offered as part of the OpenRoads Designer Accreditation program. <i>Don Lee, Tom Stogdill, Volaree Rendon</i>	
3:15 p.m. - 5:00 p.m.	Quantities and Earthwork	Quantities, Assets, and Reporting
Hands-on Workshop <i>Intermediate - Expert</i>	In this course, you will learn various tools and methods to compute quantities and earthwork from the corridor model. You will learn how to assign unit costs and generate an estimated cost report for your project using the Component Quantities and Element Component Quantities tools. We will take a look at how to generate cut and fill volume reports from single corridor models as well as multiple corridor models. You will also learn how Named Boundaries and the Quantities Report by Named Boundary tool can be used to separate quantities in the corridor model. And lastly, you will learn how to create an End Area Volume Report and Mass Haul Diagram. This workshop is also offered as part of the OpenRoads Designer Accreditation program. <i>Kevin McDonald, Claudio Cristallini, Tim Wright</i>	
3:15 p.m. - 5:00 p.m.	Regression Analysis - Rail	Rail Geometry and Modeling
Hands-on Workshop <i>Intermediate</i>	In this course you will learn how to create a horizontal and vertical alignment along an existing track using the regression tools available in OpenRail Designer. <i>Chris Key, Kevin Jackson, Sonya Pieterse</i>	
4:15 p.m. - 5:00 p.m.	Bentley Communities Forum - OpenRoads Drainage and Utilities Q&A	Drainage and Utilities
Roundtable <i>Novice - Expert</i>	Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encouraged to share their questions, ideas and suggested solutions. This session is focused on OpenRoads Designer Drainage and Utilities. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation. <i>Beebe Ray, Jeff Martin</i>	

Tuesday, March 17, 2020

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

4:15 p.m. - 5:00 p.m.	Computing Earthwork Volumes	Quantities, Assets, and Reporting
Presentation <i>Intermediate - Expert</i>	Earthworks are one of the largest costs to consider for any project. OpenRoads Designer's model-based design (BIM) approach provides significant flexibility and accuracy in quantity calculations. Come see how the modeling capabilities of OpenRoads Designer help you calculate cut, fill, unsuitable, subsurface, subgrade, and other custom quantities 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. <i>Dan Sheldon</i>	
4:15 p.m. - 5:00 p.m.	Creating Detail Sheets	Drawing Production and Deliverables
Presentation <i>Novice</i>	As you move into the Sheet Composition stage of a design project, it is often necessary to create typical sections, details, and multi-scale detail sheets. In the past, laying out these drawings on sheets was a time-consuming and error-prone process. In this session you will learn how to use the new accelerated sheet creation and layout tools found MicroStation's CONNECT Edition's Documentation Center to speed sheet creation and use tools such as Text Favorites and Label to assist in annotation. <i>Shawn McGaffick</i>	
4:15 p.m. - 5:00 p.m.	Creating Dynamic Retaining Wall Profiles from the 3D Model	Road Modeling
User Presentation <i>Intermediate</i>	Use the real power of OpenRoads to create dynamic wall profiles for estimating or production. Not only are the profiles dynamic but the annotation is as well. Now model changes won't require hours of updates. Learn how to customize your annotation groups and generate your sheets. <i>Josh Manns</i>	
4:15 p.m. - 5:00 p.m.	Merging Air and Ground Photos in a Reality Model	Reality Modeling
Tech Talk <i>Intermediate</i>	In this session we will review the steps necessary for a good air and Ground Fusion of imagery. The user will get an understanding for the process and details on how best to make these photo captures work best. <i>Mike Barkasi</i>	
4:15 p.m. - 5:00 p.m.	Utilizing OpenRoads Modeling to Develop & Analyze Maintenance of Traffic Concepts	Road Modeling
User Presentation <i>Novice - Expert</i>	This session focuses on modeling Maintenance of Traffic (MOT). Correctly analyzing and developing a MOT concept is key to any engineering design. This presentation will be a live demonstration on how to develop a MOT model for multiple scenarios. Modeling allows engineers to quickly and accurately analyze different MOT concepts. This results in less design errors and better overall constructability. There are different levels of MOT modeling that all contribute to a good design. Even the simplest MOT models can provide valuable insight to an engineer. Both complex and simple model alternatives will be presented. Demonstrations will be provided for the following scenarios: (1) Two-lane to four-lane widening project, (2) Single-lane roundabout (3) Minor urban reconstruction <i>Steven Buck</i>	

Wednesday, March 18, 2020

Breakfast

7:00 a.m. - 8:00 a.m.	Breakfast	Conference General
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Concurrent Sessions - Wednesday 8:00 a.m. - 9:45 a.m.

8:00 a.m. - 8:45 a.m.	Bentley Communities Forum - OpenRoads Survey and Terrain Q&A	Survey
Roundtable <i>Novice - Expert</i>	Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encouraged to share their questions, ideas and suggested solutions. This session is focused on OpenRoads Designer Survey and Terrain. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation. <i>Kevin McDonald, Kevin Jackson</i>	
8:00 a.m. - 8:45 a.m.	Complex Geometry Constructions	Geometry
Presentation <i>Intermediate - Expert</i>	Learn how to create complex geometry constructions such as loop ramps, multi-centered curves, complex curve-spiral combinations, and reverse spiral transitions. <i>Ian Rosam</i>	
8:00 a.m. - 8:45 a.m.	Configuring an OpenRoads Designer Managed Workspace in ProjectWise	Workspace
Tech Talk <i>Intermediate</i>	OpenRoads workspaces managed in Projectwise can offer significant benefits when working in large or dispersed environments. Join us to learn how to effectively implement OpenRoads managed workspaces. <i>JP Gauthier, Holly Herring</i>	
8:00 a.m. - 8:45 a.m.	Plan and Profile Annotation	Drawing Production and Deliverables
Presentation <i>Intermediate</i>	An in-depth discussion of what is possible with plan and profile annotations and how to set them up to meet your requirements. This session is part presentation and part interactive Q&A. <i>Chuck Lawson</i>	
8:00 a.m. - 8:45 a.m.	Plans Production in OpenBridge: Generating Intelligent 2D Drawings from 3D Bridge Models	Bridge
Presentation <i>Novice - Expert</i>	Accelerate bridge drawings production by creating 2D drawings from the 3D bridge model using dynamic views, typical sections, pier drawings and plan elevation sheets. <i>Steve Willoughby</i>	

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

<p>8:00 a.m. - 8:45 a.m.</p> <p>User Presentation <i>Novice - Expert</i></p>	<p>Visualizing the Digital Twin</p> <p>Everyone involved in the project from design to construction has heard of 3D digital models. However, many in the industry are not convinced of their benefits. Implementation of 3D engineered models in transportation has evolved from a niche service, to become a standard part of the planning and design process. Importantly, you should realize that not all 3D models are created equal. This presentation provides valuable lessons about techniques that work and practices to avoid when developing a 3D model for visualization.</p> <p><i>Ariel Rauk, Steve Meyer</i></p>	<p>Visualization</p>
<p>8:00 a.m. - 9:45 a.m.</p> <p>Hands-on Workshop <i>Novice</i></p>	<p>Hands on with iTwin Design Review</p> <p>During this workshop we will learn how to coordinate design reviews faster with iTwin Design Review by initiating design reviews directly from your models to eliminate intermediate steps and artifacts. Learn how our unique, hybrid 2D/3D review environment can facilitate faster, more informed review sessions, and leverage discipline-specific workflows to avoid disjointed communications and ad hoc workflows. Any user who is involved in the design or design review process is welcome to attend.</p> <p><i>Taylor Gilmore, Chris Key, Volaree Rendon</i></p>	<p>Digital Twins</p>
<p>8:00 a.m. - 9:45 a.m.</p> <p>Hands-on Workshop <i>Novice</i></p>	<p>Introduction to OpenSite Designer</p> <p>This course is designed to help users understand the basic tools within OpenSite Designer. Users will learn work-flows for creating a site project and also learn about using the new automation and optimization tools for grading. You will begin by creating the conceptual horizontal layout of the site that includes the building footprint, parking lots, main drive and connector drives. Once the conceptual horizontal layout is complete you will run the Grading Solver which will optimize the grading for the site and also define the elevations of the 3D site elements.</p> <p><i>David Settlemyer, Beebe Ray, Sherry House</i></p>	<p>Site Modeling</p>
<p>8:00 a.m. - 9:45 a.m.</p> <p>Hands-on Workshop <i>Intermediate</i></p>	<p>Templates Triggers and Switches</p> <p>Learn how to create templates that use null points with component display rules that act as triggers (or switches) to display and undisplay parts of your template when linear geometry is added as corridor reference elements to a corridor. An example of this is turning off curb and grading components in intersections areas when in intersection match line element is added as a corridor reference. We will also discuss how to create end conditions that can be used to check for the existence of a right of way feature.</p> <p><i>Tim Wright, Claudio Cristallini, Jeff Martin</i></p>	<p>Road Modeling</p>
<p>8:00 a.m. - 12:00 p.m.</p> <p>Hands-on Workshop <i>Intermediate</i></p>	<p>Intersection Design (4 hour workshop)</p> <p>Be aware that this is a 4 hour Workshop. This course teaches tools and techniques that can be used to lay out and model a complex intersection. In this course, you will be designing a complex intersection that includes turn lanes, median islands and turn lane islands. 2D horizontal geometry will be created using the Horizontal Geometry tools and Profiles and 3D elements will be created using the Vertical Geometry tools. The objective is to create a terrain model of the proposed pavement surface and analyze the proposed drainage contours. You will learn how to use Linear Templates to create the curb, sidewalk and side slope grading along the edges of pavement and islands, use Surface Templates to apply material thickness to the pavement surface and median islands, create a Finished Grade Terrain Model using Graphical Filters and export the Finished Grade Terrain Model to LandXML format.</p> <p><i>Scott Urbas, Dan Sheldon, Don Lee</i></p>	<p>Road Modeling</p>
<p>9:00 a.m. - 9:45 a.m.</p> <p>Roundtable <i>Novice - Expert</i></p>	<p>Bentley Communities Forum - OpenRoads Drawing Production and Annotation Q&A</p> <p>Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encouraged to share their questions, ideas and suggested solutions. This session is focused on OpenRoads Designer Drawing Production and Annotation. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation.</p> <p><i>Kevin McDonald, Holly Herring</i></p>	<p>Drawing Production and Deliverables</p>
<p>9:00 a.m. - 9:45 a.m.</p> <p>Presentation <i>Novice - Expert</i></p>	<p>Continuous Survey- Construction Verification for Highways</p> <p>In this session, you will learn how Digital Construction Works (an integration services provider) applies proven lab-tested workflows using a Continuous Survey method for Construction Verification for Highways and Roads, which can also be applied to other linear assets. Proper 4D Planning requires a regular digital twinning cycle. Feeding as-built data "Digital Context" back to the Digital Twin and comparing as-built to as-planned using the current approach takes considerable time where some as-built programs could be 4 – 6 weeks behind as-constructed situation and some could even be three months behind. We will show an example use case where applying the Continuous Survey Construction Verification for Highway solution can shorten the digital twinning cycle anywhere from four months down to one week. In addition, the current approach is costly, unsafe for the workforce, and labor-intensive on data collection and model creation. Comparing reality versus design in a continuous fashion allows a faster and more automated way of collecting as-built data and comparing it to an as-planned status. Continuous Surveying Construction Verification for Highways also removes the potential backlog of survey to the model updates and allows better asset management. Through this method, data is collected using mobile mapping workflows and processed and prepared for analysis. The collected data (REALITY) is then compared to the 3D MODEL (DESIGN). Reports, planning updates, and other outputs are then generated based on specification requirements.</p> <p><i>Cole Moon, Paul Carlson</i></p>	<p>Digital Twins</p>
<p>9:00 a.m. - 9:45 a.m.</p> <p>User Presentation <i>Intermediate - Expert</i></p>	<p>Innovative Template Solutions</p> <p>Are your templates not doing enough of the legwork for you? Over the last several years, we have developed some out-of-the-box templates to solve many of our more complicated day-to-day challenges. Join us, as we reflect on some of these solutions and look forward on how to make our future templates even smarter! Note that this is an advance template session.</p> <p><i>Andrew Poszich</i></p>	<p>Road Modeling</p>
<p>9:00 a.m. - 9:45 a.m.</p> <p>Presentation <i>Novice - Expert</i></p>	<p>Integrating Geotechnical Data in OpenRoads Designer</p> <p>In this session, you will learn how to quickly and efficiently integrate subsurface data within civil design using OpenGround, gINT or HoleBASE applications. * Loading multiple sub surface layers and topography, * Geological interpretation tools, * Creation of surfaces and volumes, * Integration into profiles and cross sections, * Adding borehole strip logs in the document production tools.</p> <p><i>Nicolas Loubier</i></p>	<p>Geotechnical</p>

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

9:00 a.m. - 9:45 a.m.	Practical Uses of OpenBridge Modeler	Bridge
User Presentation Novice - Expert	In this session we will explore how OBM was utilized in numerous real projects, and see what kind of results it delivered. Specific topics may range from clearances, finish grade elevations, plans production, analytical data transfer, and more. <i>Steve Tissier</i>	

Break

9:45 a.m. - 10:15 a.m.	Break	Conference General
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Concurrent Sessions - Wednesday 10:15 a.m. - 12:00 p.m.

10:15 a.m. - 11:00 a.m.	Getting the Model Right	Road Modeling
Presentation Intermediate - Expert	Join us for techniques and tips to model all sizes of projects efficiently. We will discuss how file federation, backbone only corridors, level of detail and such can influence calculations, deliverables, drawing production, performance, and collaboration with the design team. <i>Volaree Rendon</i>	

10:15 a.m. - 11:00 a.m.	I Didn't Know Bentley Did That!	General
Tech Talk Novice - Expert	What services does Bentley provide and who do I contact? <i>Kevin McDonald</i>	

10:15 a.m. - 11:00 a.m.	OpenBridge Designer Workspace and library configuration. Incorporating OpenRoads workspace	Bridge
Presentation Novice - Expert	Configure the OpenBridge Designer workspace according to your organization's standards. <i>Steve Willoughby</i>	

10:15 a.m. - 11:00 a.m.	Shaping the Future - Digital Deliverables	Drawing Production and Deliverables
Roundtable Novice - Expert	Join our product management team to provide feedback concerning what digital deliverables you create as well as what 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. <i>Ian Rosam, Dan Ahern</i>	

10:15 a.m. - 11:00 a.m.	Using Geometry Builder to Define (Right of Way) Geometry	Geometry
Presentation Intermediate	Learn the power of the Geometry Builder to define and edit geometry. Specifically we will explore how to create existing and proposed right of way lines and existing property parcel from record data during this session. A hands-on workshop is also offered on this same topic. <i>Kevin Jackson</i>	

10:15 a.m. - 11:00 a.m.	Using OpenRoads & OpenRail Designer on Real Projects Around the World	General
User Presentation Novice - Expert	This presentation will provide a consultant's perspective on actual/real project uses of OpenRoads & OpenRail Designer where the technology was not mandated by the client, but chosen due to production efficiency gains, etc. Come see how these experiences have turned out... <i>Jason Harkless</i>	

10:15 a.m. - 12:00 p.m.	Beyond Centerline Geometry	Geometry
Hands-on Workshop Intermediate	Pavement edges are particularly important: they are required in plan sheets and the 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 also taught on Monday at 3:15. <i>Chris Collins, Chuck Lawson, Sonya Pieterse</i>	

10:15 a.m. - 4:00 p.m.	MicroStation Designer Accreditation (5 hour workshop)	Accreditation
Hands-on Workshop Novice - Expert	This five-hour workshop offers a hands-on insight into the Bentley MicroStation User Accreditation program. This will include a review of the required course, the MicroStation CONNECT Edition Basics for Civil Designers, its setup, and installation. A review of the mandatory skills required for completion, and hands-on mastery of sections in the course based on attendee feedback will be provided. Includes an introduction to the project task, instructions, setup, and getting started, this will also include hands-on sessions completing a portion of the project task. The project task will be provided during this session with the balance of work to be completed by users after the conference and submitted for accreditation. <i>Tom Stogdill, Shawn McGaffick</i>	

10:15 a.m. - 4:00 p.m.	OpenRoads Designer Accreditation (5 hour workshop)	Accreditation
Hands-on Workshop Novice - Expert	This five hour workshop offers the required training for the Bentley Civil User Accreditation - Basic Road Design Modeling. This includes the two required hands-on workshops: Quantities and Earthwork, Drawing Production – Creating Cross Section Sheets. The final portion of accreditation is completion of a project task. Instructions and dataset for the project task will be provided during this session with the work to be completed by users after the conference and submitted for approval. <i>Jeff Martin, Claudio Cristallini, Scott Urbas, Sherry House</i>	

Wednesday, March 18, 2020

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

11:15 a.m. - 12:00 p.m.	Adding Value to Rail Projects with OpenRail Designer	Rail Geometry and Modeling
Presentation <i>Novice - Expert</i>	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. <i>Ian Rosam</i>	
11:15 a.m. - 12:00 p.m.	Bentley Bridge and IFC Compliance	Bridge
Presentation <i>Novice - Expert</i>	The long awaited standard for exchanging bridge information has been released by Building Smart and OpenBridge Designer is in compliance with it! <i>Alex Mabrich</i>	
11:15 a.m. - 12:00 p.m.	Civil Engineering and Reality Modeling	Reality Modeling
Presentation <i>Novice - Intermediate</i>	In this session we will look at common uses for Reality models in civil engineering workflow. The user will gain an understanding on how to specify the requirements for what is needed for typical uses, such as Ortho Photos or 3D reality Models. Additionally, potential accuracy and how accuracy can be best checked and verified will be discussed. <i>Mike Barkasi</i>	
11:15 a.m. - 12:00 p.m.	Creating Drainage Plan and Profile Sheets	Drainage and Utilities
Presentation <i>Intermediate</i>	In this presentation we will look at how changes to the drawing production functionality will make it easier to produce your drawings, including how to superimpose drainage and utilities on a roadway profile. <i>Jonathan Smith</i>	
11:15 a.m. - 12:00 p.m.	Drainage and Utilities for Site Modeling	Drainage and Utilities
Tech Talk <i>Novice - Intermediate</i>	Included in OpenSite Designer is the ability to design and analyze storm drainage facilities. This session will cover how to create layout and analysis design to create final design. Also, learn how to use Subsurface Utilities to layout other utilities such as water, sewer and power. <i>David Settlemyer</i>	
11:15 a.m. - 12:00 p.m.	Shaping the Future - Survey	Survey
Roundtable <i>Novice - Expert</i>	Join our product management team to provide feedback concerning how you use the survey tools as well as what 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. <i>Dan Ahern, Kevin McDonald</i>	

Lunch

12:00 p.m. - 1:00 p.m.	Lunch - For those attending the limited number of post-conference sessions Wednesday afternoon.	Conference General
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Concurrent Sessions - Wednesday 1:00 p.m. - 2:45 p.m.

1:00 p.m. - 1:45 p.m.	ProjectWise Update and Hidden Gems	ProjectWise
Presentation <i>Novice - Expert</i>	This presentation will cover a overview of the new features in Projectwise design integration Geospatial Manager, ESRI Integration , Office 365, etc.) and Projectwise 365 Updates (Deliverables Management, PDF Markup/ Issues Resolution, Project Insights, Projectwise Web, and Web View). See some of the hidden Gems that have been available in Projectwise, I-model Composition Service (ICS) , Workflows and Rule Engine, Document Coding, Save Searches for Automation, PowerShell and Flow. <i>JP Gauthier</i>	
1:00 p.m. - 2:45 p.m.	Cloud Technology and the Geotechnical Data Lifecycle	Geotechnical
Presentation <i>Novice - Expert</i>	In this session, you will learn why companies are moving their IT systems to the Cloud and why so many users are upgrading to Cloud technology for managing geotechnical data. We will discuss Why the Cloud?, Geotechnical data lifecycle, How others are benefiting, and OpenGround Cloud demonstration. <i>Nicolas Loubier</i>	
1:00 p.m. - 2:45 p.m.	Creating and Manipulating the Corridor	Road Modeling
Hands-on Workshop <i>Intermediate</i>	In this course, you will create a roadway corridor and then explore the many tools and techniques to edit and manipulate the corridor. We will take a look at how to add multiple templates drops along the corridor as you encounter intersections, driveways and turn lanes and how to edit and copy template drops in lieu of creating a new template. We will show how to make the corridor follow edge of pavement geometry using point controls and corridor references. You will learn how the secondary alignment tool aids in changing the direction of template processing as it applies to point controls and corridor reference elements. You will also learn how to use parametric constraints to override default template values for pavement depths, curb heights, shoulder slopes and ditch widths and how to use the clipping reference tool to clip out a portion of your corridor. We will take a look at how corridors interact with other corridors by learning how to use target aliasing to seek corridors. And finally we will show how to create end condition exceptions in areas that require a different type of end condition solution. This course is also taught on Monday at 3:15. <i>Joey LouAllen, Chris Collins, Chris Key</i>	
1:00 p.m. - 2:45 p.m.	Drawing Production – Creating Plan and Profile Sheets	Quantities, Assets, and Reporting
Hands-on Workshop <i>Novice - Expert</i>	In this course, you will learn how to create plan and profile sheets. You will learn how to create Named Boundaries that will be used to generate various plan and profile sheets. You will also learn about drawing models and sheet models that are used during the sheet creation process. And lastly, you will learn how to add individual annotations to label specific location coordinates, station-offset values, elevations, and more. This course is also taught on Tuesday at 1:00. <i>Dan Sheldon, Kevin McDonald, Holly Herring</i>	

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

ProjectWise Hidden Gems and Bentley Communities Forum Q&A

ProjectWise

Roundtable

Novice - Expert

Take part in the amazing community of product experts at the conference to share questions and problems and discuss solutions. Everyone has questions, everyone has ideas, everyone has solutions. That means everyone (you, me, Bentley) attending the session is encourage to share their questions, ideas and suggested solutions. This session is focused on ProjectWise. Bring your questions and be willing to share your knowledge because this is an interactive Q&A session, not a prepared presentation.

JP Gauthier