

2022 FLUG TRAINING FORUM Daily Overview

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|----------------------|--|--|
| Monday Oct. 11 | 4:30pm - 6:30pm | Early On-Site Registration / Support Partner Setup |
| | Seagrapes | |
| TUESDAY Oct. 12 | 7:00am - 8:30am Sea Oats / Seagrapes | Registration and Breakfast |
| | 8:00am - 8:15am Sea Oats | Welcome with Opening Announcements |
| | 8:30am - 5:15pm | General Sessions and Hands-On Workshops |
| WEDNESDAY Oct. 13 | 7:00am - 8:30am Sea Oats / Seagrapes | Registration and Breakfast |
| | 8:00am - 8:15am Sea Oats | Welcome with Opening Announcements |
| | 8:15am - 9:15am Sea Oats | Key Note: To be Announced |
| | 9:45am - 5:15pm | General Sessions and Hands-On Workshops |
| THURSDAY Oct. 14 | 7:00am - 8:30am Sea Oats / Seagrapes | Registration and Breakfast |
| | 8:00am - 8:15am Sea Oats | Welcome with Opening Announcements |
| | 8:30am - 5:15pm | General Sessions and Hands-On Workshops |
| | 6:30pm - 9:30pm Ball Room | <i>Evening Social: Refreshments Served!</i> <i>Presented by FLUG and Our Partners</i> |
| FRIDAY Oct. 15 | 7:00am - 8:30am Sea Oats / Seagrapes | Registration and Breakfast |
| | 8:00am - 8:15am Sea Oats | Welcome with Opening Announcements |
| | 8:30am - 3:45pm | General Sessions and Hands-On Workshops |



Tuesday - 11th

| | | General Session | General Session | General Session | General Session | General Session | General Session | Workshop Sandcastle I (15) | Workshop Sandcastle II (15) | Workshop Seahorse (15) | Workshop Horizon (40) | |
|---|--|--|--|--|---|--|---|---|--|---|---|--|
| 8:30-9:30 | "Technology Hub Open - Come and visit our Support Partners!" | An Introduction to OpenRoads Designer Survey Bentley Sonya Pieterse | * Corridor Side Slope Design and Modeling Bentley Jimmie Prow | * Geometry Rules and Relationships Bentley Christiana Holmes | What's new in OBD? Bentley Alex Mabrich | FDOT Plan Set Manager FDOT Matt Sexton | FDOT Civil 3D Labeling - Concepts of Labels and Label Styles FDOT Mike Racca | * T-1-SC I Latest features and methods for Feature Extraction using Point-Clouds for TopoDOT Users TopoDOT Mike Cook | ** T-1-SC II Importing and Reviewing Survey Data Bentley Alvie Griffith | T-1-SH OpenBuildings Designer: Modeling and BIM Essentials of a 3D Transit Station Bentley Mark Enos | *T-1-H FDOT Connect - Roadway Design 3D Modeling ACEC-FDOT Dallas Wait | |
| Break | | | | | | | | | | | | |
| 9:45-10:45 | | An Introduction to OpenSite Designer Bentley Sonya Pieterse | Data Migration Bentley Kevin Lusterio | * Grading - It's not just Dirt Bentley Christiana Holmes | * Moving to BIM: How Organizations are moving from 2D Bridge Plans to Digital Deliverables Bentley Alex Mabrich | * FDOT Building Custom Drainage Features in OpenRoads Designer FDOT James Worley | You Want Me to Do What Now? - An Intro to Civil 3D Mead & Hunt Adam Farnsworth | | | | | |
| Break | | | | | | | | | | | | |
| 11:00-12:00 | | What's New in OpenRoads Designer 2022 - R1/R2 Bentley Jimmie Prow | iTwin Design Review-Setting up your files Bentley Rob Riley | Creating Tables and Reports Bentley Todd Holt | Customization of Footing Templates Bentley Alex Mabrich | FDOT CADD Compliance Checklist Changes FDOT John Mark Palacios | * Let's Talk about Pipes, Baby. Let's Talk About Gravity! - Pipe Networks in Civil 3D Mead & Hunt Adam Farnsworth | | | * T-2-SC II Detecting and Managing Utility Conflicts Bentley Jordan Hatfield | * T-2-SH Overlay, Stripping and Widening Bentley Christiana Holmes | |
| Lunch | | | | | | | | | | | | |
| 1:30-2:30 | | What Everyone Should Know about Civil AccuDraw Bentley Jordan Hatfield | Enabling 3D Design Review and Collaboration with iTwin Design Review Bentley Rob Riley | Cross Section Annotation Bentley Christiana Holmes | * Grading Design and Modeling at Bridge Abutments Bentley Alex Mabrich | FDOT Future: Digital Delivery FDOT Vern Danforth | ** Best practices for Survey deliverables Bentley Alvie Griffith | *T-2-SC I Takeoffs, Estimating, Alignments and Models: Trimble TEAM Software Overview Trimble Mike Eason & Scott Bridges | | | | |
| Break | | | | | | | | | | | | |
| 2:45-3:45 | * With OpenRoads Designer an ordinary design becomes your interoperable data Bentley Christiana Holmes | Item Type Fundamentals - Part 1 Bentley Jordan Hatfield | * Creating Plan Sheets for non-linear areas Bentley Jordan Hatfield | FDOT Structures: Workflow Updates FDOT Heather Piorun | Road Characteristics from CAD Files PHOCAZ Mark Stefanchuk | An Overview of Bluebeam Revu DDSCAD Ari Rejtman | | | *T-3-SC II Creating and Editing Centerline Geometry Bentley Todd Holt | *T-3-SH Intersection Design - 3D Model Detailing Bentley Sonya Pieterse | | |
| Snack with the Support Partners! (Technology Hub) | | | | | | | | | | | | |
| 4:15-5:15 | What's new in MicroStation CONNECT Update 17 Bentley Dan Eng / Tamicca Sellars | * Item Type Fundamentals - Part 2 Bentley Jordan Hatfield | * Roadway Plans Methodology and More Bentley Jimmie Prow | FDOT Structures: Automated Bridge Quantities FDOT Kandi Daffin | ** Editing Survey Features Using Point Lists Bentley Alvie Griffith | Dictate Your Ribbon Don't Let it Dictate You Mead & Hunt Andrew Easley | | | | | | |

Legend

* denotes PDH credits
** denotes PSM CE Credits



Wednesday - 12th

| | General Session | General Session | General Session | General Session | General Session | General Session | Workshop Sandcastle I (15) | Workshop Sandcastle II (15) | Workshop Seahorse (15) | Workshop Horizon (40) |
|---|--|---|---|---|--|---|---|--|---|--|
| 8:30-9:30 | Key Note | | | | | | | | | |
| Break | | | | | | | | | | |
| 9:45-10:45 | * Above and Beyond Corridor Modeling Bentley Kevin Lusterio | Digitally Sign & Seal Documents for Submittal to FDOT with Bluebeam Revu DDSCAD Ari Rejtman | ** Using Geometry Builder to Define (Right of Way) Geometry Bentley Alvie Griffith | Sheet Seed Creation Advanced Tips and Tricks Bentley Jimmie Prow | FDOT CADD Model Element Properties FDOT Kandi Daffin/Vern Danforth | FDOT Traffic Tool Update FDOT Randy Roberts | * W-1-SC I Analyzing Larger Storm Events Bentley Christiana Holmes | * W-1-SC II Modeling PC Bridges. Updated Bentley Alex Mabrich | * W-1-SH Creating a Terrain from Point Cloud Data Bentley Todd Holt | * W-1-H FDOT Connect Plan Development Workflows ACEC-FDOT Krissy Hoffman |
| Break | | | | | | | | | | |
| 11:00-12:00 | Project data flow through digital asset lifecycle management Trimble Mike Eason & Scott Bridges | ProjectWise: The Benefits of Plotting ORD Files with ICS for PDF Bentley Arbie Parker | * OpenBuildings Designer – Information Modeling in 3D of a Transit Station Bentley Mark Enos | FDOT Civil 3D Code Set Styles for Assemblies and Sub-Assemblies FDOT Mike Racca | FDOT General Workspace Setup Configuration and Troubleshooting FDOT Matt Sexton | ** Understanding Survey Feature Definitions Bentley Alvie Griffith | ↓ | ↓ | ↓ | ↓ |
| Break | | | | | | | | | | |
| 1:30-2:30 | * Florida DOT Roadway Volume Verification Software Trimble Scott Bridges & Mike Eason | ProjectWise: Configuring Rules-Based Workflows in ProjectWise Bentley Arbie Parker | * OpenBuildings Designer for Road Infrastructure – Design of Support Buildings and Structures Bentley Mark Enos | Pushin’ Dirt – Grading Tricks in Civil 3D Mead & Hunt Adam Farnsworth | * Save time & money with parametric workflows for 3D/FEA modeling & design code checks OpenBrIM Platform Cagin Yakar | FDOT Plan Label Automation Tools FDOT Chris Thorp | W-2-SC I Getting Started with 3D in MicroStation CONNECT Edition Bentley Dave Mayer | W-2-SC II Photorealistic Rendering and Animation in MicroStation CONNECT Edition. Bentley Steve Rick | ** W-2-SH Right of Way Fundamentals Bentley Alvie Griffith | ↓ |
| Break | | | | | | | | | | |
| 2:45-3:45 | Digital Design & Construction workflows including latest technology preview Trimble Adrien Patane' | ProjectWise: Delivering Deliverables with PWDM Bentley Arbie Parker | * Understanding Terrain Models Bentley Jordan Hatfield | I'VE CRASHED AGAIN! – Tips & Tricks to Improve Stability and Efficiency in Civil 3D Mead & Hunt Adam Farnsworth | * Analysis & Design- Complex Curved Steel I Girder Bridge - OpenBrIM workflow and design code checks OpenBrIM Platform Cagin Yakar | FDOT CADD QC FDOT Brandon Welch | ↓ | ↓ | ↓ | ↓ |
| Snack with the Support Partners! (Technology Hub) | | | | | | | | | | |
| 4:15-5:15 | Use iTwin Design Review to Share and Collaborate on Design Models Bentley Rob Riley | Templates Deconstructed Bentley Jordan Hatfield | Workspace Conversion - Survey Foot to International Foot Bentley Jimmie Prow | * 3D Modeling for Non-Modelers QC Kisinger Campo and Associates Emmanuel Marin | * Plans Production with OBM Bentley Steve Willoughby | FDOT CADD Delivery; including BIM files for Earthwork FDOT John Mark Palacios | ↓ | ↓ | ↓ | ↓ |

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Thursday - 13th

| | General Session | General Session | General Session | General Session | General Session | General Session | Workshop Sandcastle I (15) | Workshop Sandcastle II (15) | Workshop Seahorse (15) | Workshop Horizon (40) |
|---|--|--|---|--|--|---|--|---|--|---|
| 8:30-9:30 | * Identify and Manage Utility Clashes in Transportation Projects Bentley Rob Riley | * Draining a Road Surface Effectively Bentley Christiana Holmes | * A Practical Approach to Precise Slopes Geosyntec Consultants, Inc. Chuck Turlington | Road Characteristics from CAD Files (repeat) PHOCAZ Mark Stefanchuk | * Meshin' Around with OpenRoads Designer Bentley Todd Holt | FDOT/Trimble - Quadri FDOT Vern Danforth | * TH-1-SC I Plans Production with OBM. Updated Bentley Steve Willoughby | * TH-1-SC II QuickStart for Geometry - Road Bentley Jimmie Prow | * TH-1-SH Using and Editing Terrain Models Bentley Sonya Pieterse | * TH-1-H FDOT Connect - Traffic Plans ACEC-FDOT Erick Gray |
| Break | | | | | | | | | | |
| 9:45-10:45 | What's New in OpenRoads Designer 2022 - R1/R2 (repeat) Bentley Christiana Holmes | Creating Drainage Reports Bentley Jordan Hatfield | Matterport - 3D Scanning (Buildings) Mead & Hunt Adam Farnsworth | An Overview of Bluebeam Revu (repeat) DDSCAD Ari Rejtman | Managing Construction Data in the Cloud (from the Office to the Field) Trimble Ev Tripolitis | FDOT Plan Set Manager (repeat) FDOT Matt Sexton | ↓ | ↓ | ↓ | ↓ |
| Break | | | | | | | | | | |
| 11:00-12:00 | FDOT/Bentley - SYNCHRO FDOT / Bentley Vern Danforth / Dan Sheldon | * Drainage Plans Production Bentley Jordan Hatfield | All about 3D Scanning EMS, Inc. Mark Kemper | Data Comparison and Applications of UAS Imagery and LiDAR Systems TopoDOT Mike Cook | ** Using Geometry Builder to Define (Right of Way) Geometry (repeat) Bentley Alive Griffith | FDOT Automated Quantities FAQs FDOT Kandi Daffin | * TH-2-SC I Analytical Design of Concrete Bridges Bentley Steve Willoughby | * TH-2-SC II Defining Template End Conditions Bentley Todd Holt | * TH-2-SH Designing Inlets to Collect Runoff Bentley Kevin Lusterio | ↓ |
| Lunch | | | | | | | | | | |
| 1:30-2:30 | SYNCHRO Model considerations for Construction Bentley Dan Sheldon | Annotating Drainage Profiles Bentley Jordan Hatfield | Coordinate Transformation Geosyntec Consultants, Inc. Chuck Turlington | ** Using Point-Clouds Beyond Survey TopoDOT Mike Cook | * Roadway Plans Methodology and More (repeat) Bentley Jimmie Prow | FDOT CADD Compliance Checklist Changes (repeat) FDOT John Mark Palacios | ↓ | ↓ | ↓ | * TH-2-H FDOT Connect - Automated Quantities ACEC-FDOT Richie Perez |
| Break | | | | | | | | | | |
| 2:45-3:45 | SYNCHRO Construction Solution Bentley Dan Sheldon | Drainage - Plans Production Tips and tricks Bentley Sonya Pieterse | * Creating Plan Sheets for non-linear areas (repeat) Bentley Jordan Hartfield | Advanced Template Tips and Tricks RS&H Andrew Poszich & Thomas Anzelone | Digitally Sign & Seal Documents for Submittal to FDOT with Bluebeam Revu (repeat) DDSCAD Ari Rejtman | * FDOT Building Custom Drainage Features in OpenRoads Designer (repeat) FDOT James Worley | * TH-3-SC I Analytical Design of Steel Bridges Bentley Alex Mabrich | TH-3-SC II OpenBuildings Designer: Managing Spaces, Assets, and Schedules of a 3D Transit Station Bentley Mark Enos | * TH-3-SH Designing Pipes to Convey Runoff Bentley Christiana Holmes | ↓ |
| Snack with the Support Partners! (Technology Hub) | | | | | | | | | | |
| 4:15-5:15 | SYNCHRO Design to Construction Bentley Dan Sheldon | * Grading - It's not just Dirt (repeat) Bentley Todd Holt | * Understanding Terrain Models (repeat) Bentley Christiana Holmes | * Dynamic Profiling: A Guide to Interactive Geometry RS&H Andrew Poszich & Thomas Anzelone | * Florida DOT Roadway Volume Verification Software (repeat) Trimble Scott Bridges & Mike Eason | FDOT BIM360 FDOT Vern Danforth | ↓ | ↓ | ↓ | ↓ |

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Friday - 14th

| Friday - 14th | | | | | | | | | | |
|---|--|---|---|---|--|---|---|--|--|--|
| | General Session | General Session | General Session | General Session | General Session | General Session | Workshop Sandcastle I (15) | Workshop Sandcastle II (15) | Workshop Seahorse (15) | Workshop Horizon (40) |
| 8:30-9:30 | Item Types Enhancements in OpenRoads Designer 2022 Release 1 Bentley Sonya Pieterse | BIM Enlivened – OpenBuildings Designer and LumenRT Bentley Mark Enos | FDOT CADD Model Element Properties (repeat) FDOT Kandi Daffin/Vern Danforth | * Increase Efficiency- Steel Bridge Projects – Physical to Analytical Modeling and Design Bentley Alex Mabrich | Enabling 3D Design Review and Collaboration with iTwin Design Review (repeat) Bentley Rob Riley | Sustainability impacts & benefits for Digital Construction Workflows Trimble Ev Tripolitis & Adrien Patané | * F-1-SC I Introduction to Drainage Layout and Hydraulics Bentley Kevin Lusterio | F-1-SC II Using Parametric Solids, Constraints, Variables and Variants Bentley Dave Mayer | F-1-SH AccuDraw Basics Bentley Steve Rick | * F-1-H FDOT Connect - Existing Modeling ACEC-FDOT Eddie Giese |
| Break | | | | | | | | | | |
| 9:45-10:45 | * Grading Parallel Surfaces Geosyntec Consultants, Inc. Chuck Turlington | * Corridor Side Slope Design and Modeling (repeat) Bentley Christiana Holmes | FDOT General Workspace Setup Configuration and Troubleshooting (repeat) FDOT Matt Sexton | Custom Item types in OBM Bentley Alex Mabrich | Templates Deconstructed (repeat) Bentley Jordan Hatfield | * Changing the Paradigm - Model-driven Deliverables Bentley Todd Holt | | | | |
| Break | | | | | | | | | | |
| 11:00-12:00 | * Earthwork / Quantities 3D Highway Engineering Richard Perez | Best Practices for Model Management Patel, Green & Assoc. Eddie Giese | FDOT Future: Digital Delivery (repeat) FDOT Vern Danforth | Tips and Tricks using OpenBridge Bentley Alex Mabrich | Trouble Shooting and Tips for Workspace Development Bentley Todd Holt | Project data flow through digital asset lifecycle management (repeat) Trimble Ev Tripolitis | | F-2-SC II MicroStation CONNECT Edition Tips and Tricks Bentley Dave Mayer | | * F-2-H FDOT Connect - Digital Delivery Design Review ACEC-FDOT Errick Gray |
| Lunch | | | | | | | | | | |
| 1:30-2:30 | * Above and Beyond Corridor Modeling (repeat) Bentley Jordan Hatfield | * Modeling Retaining Walls Mead & Hunt, Inc. Adam Moorman | FDOT Traffic Tool Update (repeat) FDOT Randy Roberts | Tips and Tricks for Automated Quantities on RRR Projects RS&H Andrew Byrd | FDOT Structures: Workflow Updates (repeat) FDOT Heather Piorun | * Advanced Techniques with Quantities and Earthworks Bentley Todd Holt | * F-2-SC I Importing Drainage from Excel Data Bentley Christiana Holmes | | * F-2-SH Site Modeling and Non-Corridor Modeling Bentley Sonya Pieterse | |
| Snack with the Support Partners! (Technology Hub) | | | | | | | | | | |
| 2:45-3:45 | What Everyone Should Know about Civil AccuDraw (repeat) Bentley Jordan Hatfield | * Modeling Rebar in OpenBridge Modeler Atkins Steve Tissier | FDOT CADD Delivery; including BIM files for Earthwork (repeat) FDOT John Mark Palacios | FDOT CADD QC (repeat) FDOT Brandon Welch | FDOT Structures: Automated Bridge Quantities (repeat) FDOT Kandi Daffin | * Today's Plans - Tomorrow's Models Bentley Todd Holt | | | | |

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Tuesday - 11th

| | Lecture | Lecture | Lecture | Lecture | Lecture | Lecture | Workshop Sandcastle I | Workshop Sandcastle II | Workshop Sandcastle III | Workshop Sandcastle IV |
|-------------|--|--|---|---|---|--|--|--|---|---|
| 8:30-9:30 | <p>An Introduction to OpenRoads Designer Survey</p> <p>Bentley</p> <p>An introduction to the survey capabilities in OpenRoads Designer.</p> | <p>* Corridor Side Slope Design and Modeling</p> <p>Bentley</p> <p>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)How to use target labeling, end condition exceptions, and other end condition methods to create side slopes.</p> | <p>* Geometry Rules and Relationships</p> <p>Bentley</p> <p>Understanding Geometry parent/child relationships, how to build geometry in such a way that it maximizes efficiency when dealing with design changes.</p> | <p>What's new in OBD?</p> <p>Bentley</p> <p>This presentation will review all the new enhancements in OpenRoads Designer for this year release.</p> | <p>FDOT Plan Set Manager</p> <p>FDOT</p> <p>A new tool in FDOTConnect that replaces the old GEOPAK Sheet Navigator</p> | <p>FDOT Civil 3D Labeling - Concepts of Labels and Label Styles</p> <p>FDOT</p> <p>Civil3D - Review labeling and styles to make production more efficient.</p> | <p>** T-1-SC I Feature Extraction using Point-Clouds for TopoDOT Users</p> <p>Learn the latest techniques to improve your corridor feature extraction process. This session is a summary of the recent changes and updates to the feature extraction tools in TopoDOT** such as the Drage Element to Data, Asset Identification, Extraction by Intensity and more. This session is a great opportunity to increase your productivity with a few tips and tricks we have in store for TopoDOT Users. Note: Since this is a TopoDOT users' workshop, it's recommended to have some experience with the software in order to attend.</p> | <p>** T-1-SC II Importing and Reviewing Survey Data</p> <p>Bentley</p> <p>This course will cover the most basic of survey operations: Importing and reviewing survey data collected in the field. We will start with setting up a project seed file with the proper geographical coordinate system and then show several methods for importing survey data. We will examine how different file types can be processed differently. We will also examine the configuration and setup of the import process.</p> | <p>T-1-SH OpenBuildings Designer: Modeling and BIM Essentials of a 3D Transit Station</p> <p>Bentley</p> <p>Learn about creating the building base geometry, Column Grid and Walls, creating the building base-generating geometry, doors, windows and wall cleanup, annotating and dimensioning the building base, producing project deliverables, creating and printing Cut Sheets from Project Data.</p> | <p>* T-1-H FDOT Connect - Roadway Design 3D Modeling</p> <p>ACEC/FDOT</p> <p>Learn the tools for design and modeling within the FDOTCONNECT workspace.</p> |
| 9:45-10:45 | <p>An Introduction to OpenSite Designer</p> <p>Bentley</p> <p>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.</p> | <p>Data Migration</p> <p>Bentley</p> <p>New Tools and Workflows - Over the past several releases of OpenRoads Designer we have been adding more tools to make moving legacy data easier for the users. This session will highlight those tools and how to use them to migrate data.</p> | <p>* Grading - It's not just Dirt</p> <p>Bentley</p> <p>This presentation introduces some non-corridor approaches to solving advanced grading problems.</p> | <p>* Moving to BIM: How Organizations are moving from 2D Bridge Plans to Digital Deliverables</p> <p>Bentley</p> <p>Private and government organizations are facing new challenges as they are required to apply the BIM methodology in their projects in which not only 3D models need to be submitted but still provide 2D plans. A new set of workflows, CADD standards and BIM standards need to be put in place before starting any project and at the same time dealing with software and hardware compliance and upgrading their personnel. This workshop present the lesson.</p> | <p>* FDOT Building Custom Drainage Features in OpenRoads Designer</p> <p>FDOT</p> <p>Using OpenRoads and MicroStation to build custom 3D Drainage Structures</p> | <p>You Want Me to Do What Now? - An Intro to Civil 3D</p> <p>Mead & Hunt</p> <p>Introduction to Civil3D</p> | | | | |
| 11:00-12:00 | <p>What's New in OpenRoads Designer 2022 - R1/R2</p> <p>Bentley</p> <p>The presenter will be showcasing the latest additions to OpenRoads Designer</p> | <p>Twin Design Review-Setting up your files</p> <p>Bentley</p> <p>Learn the process to get your files to Twin Design Review and hear tips and tricks for project success.</p> | <p>Creating Tables and Reports</p> <p>Bentley</p> <p>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.</p> | <p>Customization of Footing Templates</p> <p>Bentley</p> <p>Learn how to define templates for custom geometry footings and incorporate them into your standards.</p> | <p>FDOT CADD Compliance Checklist Changes</p> <p>FDOT</p> <p>Overview of Changes made the the Compliance Checklist and how it will impact you.</p> | <p>* Let's Talk about Pipes, Baby. Let's Talk About Gravity! - Pipe Networks in Civil 3D</p> <p>Mead & Hunt</p> <p>Talk about all the things that are pipe networks</p> | | <p>* T-2-SC II Detecting and Managing Utility Conflicts</p> <p>Bentley</p> <p>In this course, you will learn how to identify hard and soft conflicts of underground utilities.</p> | <p>* T-2-SH Overlay, Stripping and Widening</p> <p>Bentley</p> <p>You will learn the basics of placing civil cells. This includes gaining an understanding of what civil cell references are and how to use them in a practical workflow. You will learn to use the civil cells delivered with the product, as well as how to use civil cells taken from external sources and incorporate them into your models. You will learn to edit and re-use civil cells that have been placed within a model.</p> | |
| 1:30-2:30 | <p>What Everyone Should Know about Civil AccuDraw</p> <p>Bentley</p> <p>Every quality toolbox includes specialty tools that simplify specific tasks. You don't need specialty tools all the time, but they offer substantial benefits 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.</p> | <p>Enabling 3D Design Review and Collaboration with Twin Design Review</p> <p>Bentley</p> <p>Learn how Twin 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 content and provide review feedback on design deliverables through review, collaboration and quality tools.</p> | <p>Cross Section Annotation</p> <p>Bentley</p> <p>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.</p> | <p>* Grading Design and Modeling at Bridge Abutments</p> <p>Bentley</p> <p>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 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.</p> | <p>FDOT Future: Digital Delivery</p> <p>FDOT</p> <p>Discussion of transportation industry and ultimate goal of FDOT CADD in reaching Model as the Legal Document</p> | <p>** Best practices for Survey deliverables</p> <p>Bentley</p> <p>This presentation covers a thorough overview on the many high-value tools and techniques that surveyors demand when creating deliverables for designers.</p> | <p>** T-2-SC I Takeoffs, Estimating, Alignments and Models: Trimble TEAM Software Overview</p> <p>Trimble</p> <p>Using Trimble software - with a hands-on 3 hour lab. Users will digitize Takeoff Data, Estimate earthwork quantities, enter Roadway alignments and create 3D Models for field GPS applications. We will cover the high level use of the software to understand how you can use TRC for many construction software applications including Quads.</p> | | | |
| 2:45-3:45 | <p>* With OpenRoads Designer an ordinary design becomes your interoperable data</p> <p>Bentley</p> <p>We discuss how Item Types and Twin Design Review enhance and support interoperability of your digital deliverables.</p> | <p>Item Type Fundamentals - Part 1</p> <p>Bentley</p> <p>In this session you will learn about the fundamentals of using Item Types in OpenRoads Designer.</p> <p>Topics: *Item Type Properties *Pick Lists *Custom Property Types *Calculated Properties *Expression Builder *Lookup Expression</p> | <p>* Creating Plan Sheets for non-linear areas</p> <p>Bentley</p> <p>Learn how to create plan sheets for non-linear areas such as site development, intersections, and parking areas.</p> | <p>FDOT Structures: Workflow Updates</p> <p>FDOT</p> <p>Important new updates to various tools for Bridge Design, Modeling and Plans Production</p> | <p>Road Characteristics from CAD Files</p> <p>PHOCAZ</p> <p>Road Characteristics from CAD Files</p> | <p>An Overview of Bluebeam Revu</p> <p>DDSCAD</p> <p>This presentation will cover some of Bluebeam Revu's features and best-practices when first using the program to manage your PDFs. We'll learn about customizing our interface and tools, along with the Comparison and Overlay functions. We'll also demonstrate the Dynamic Fill tool, Visual Search, and how to work on the same PDF at the same time with your colleagues via Bluebeam Studio Session.</p> | <p>** T-2-SC II Creating and Editing Centerline Geometry</p> <p>Bentley</p> <p>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.</p> | <p>* T-2-SH Intersection Design - 3D Model Detailing</p> <p>Bentley</p> <p>This course teaches tools and techniques that can be used to accurately model a complex intersection in 3D. In this course, 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. Export Finished Grade Terrain Model to LandXML format.</p> | | |
| 4:15-5:15 | <p>What's new in MicroStation CONNECT Update 17</p> <p>Bentley</p> <p>Learn what's new and added in MicroStation CONNECT Edition Update 17 that will increase your productivity and save time. You'll hear about the latest improvements and workflows in MicroStation CONNECT Edition Update 17.</p> | <p>* Item Type Fundamentals - Part 2</p> <p>Bentley</p> <p>In this session, we will focus on how to use Item Types with civil data and show how you can leverage Item Types for quantities and reporting.</p> <p>Topics: *Item Types with Feature Definitions *Single Source of Truth *Propagation, Prioritization, and Conflict Resolution *Asset Manager *Annotation and Labeling *Display Styles and Display Rules *Items Browser *Reports</p> | <p>* Roadway Plans Methodology and More</p> <p>Bentley</p> <p>Best practices, tips and workflows for creating and managing plan sheets assembly.</p> | <p>FDOT Structures: Automated Bridge Quantities</p> <p>FDOT</p> <p>How to build the Summary of Structures from OpenRoads Modeler with FDOTConnect</p> | <p>** Editing Survey Features Using Point Lists</p> <p>Bentley</p> <p>This course focuses on how to easily correct erroneous survey linework by converting the Linking Code survey features to Point List Features and then editing the Point List Features.</p> | <p>Dictate Your Ribbon Don't Let It Dictate You</p> <p>Mead & Hunt</p> <p>Tired of always searching for common tools you use daily on separate tabs in your ribbon? Take your ribbon to show the tools you use most with this guide to create a customized workflow that features a tool ribbon tailored to your specific needs.</p> | | | | |

Legend
 * Attendee FDOT credits
 ** Attendee FDOT CT Credits

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| 8:30-9:30 | | | | | | | | | | |
| | Key Note | | | | | | | | | |
| 9:45-10:45 | <p>* Above and Beyond Corridor Modeling</p> <p>Bentley</p> <p>A "deep dive" presentation into corridor modeling methods that you may have never thought possible.</p> | <p>Digitally Sign & Seal Documents for Submittal to FDOT with Bluebeam Revu</p> <p>Bentley</p> <p>The Florida Department of Transportation (FDOT) requires that all submittals are digitally signed and sealed with third-party authenticated signatures. This presentation will explain the process and demonstrate a concise and consistent set of methods for digitally signing submittals properly. Ari Reisman, a Bluebeam Certified Instructor with Digital Drafting Systems, has worked with many municipalities and trained them in the procedure for sending and receiving documents. Submittal markups can be flattened before being signed, and shop drawing stamps and official seals can be included in digital signatures.</p> | <p>** Using Geometry Builder to Define (Right of Way) Geometry</p> <p>Bentley</p> <p>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.</p> | <p>Sheet Seed Creation Advanced Tips and Tricks</p> <p>Bentley</p> <p>A lot has changed over the past few years regarding the creation of Sheet Seed Definition DGNs. In this presentation we will look at some of the new techniques for sheet seed creation. One area of focus will be placing multiple sheet seed definitions into the same DGN. This will speed up workspace load times and increase speeds switching between files.</p> <p>Topics covered:</p> <ul style="list-style-type: none"> • Putting all sheet seed definitions into a single DGN • Utilizing a backup system through the creation process • Changing the reference attachment view settings • Renaming • Removing and replacing an invalid sheet seed definition • Changing the assigned annotation group • Important discussion on Units of Resolution • Additional tips | <p>FDOT CADD Model Element Properties</p> <p>FDOT</p> <p>CADD Features built with Properties for Asset Information</p> | <p>FDOT Traffic Tool Update</p> <p>FDOT</p> <p>Review of FDOT Traffic Tools</p> | <p>* W-1-SC I Analyzing Larger Storm Events</p> <p>Bentley</p> <p>In this class you will learn how to analyze whether a system that has been designed for one storm event will cater for a larger storm event and climate change. This class also shows you how to stress test a system, to see how well it will cope if it is not properly maintained, and how to change individual pipes to improve the situation, without redesigning the whole system.</p> | <p>* W-1-SC II Modeling PC Bridges, Updated</p> <p>Bentley</p> <p>Develop a multi-span prestressed girder bridge using LEAP Bridge Concrete. We will explore the use of different super and substructure templates and how to modify them, create geometry reports, convert the 3D physical model into an analytical model, and analyze it using the LWF code. Additionally, we will create drawings and share best practices for project deliverables.</p> | <p>* W-1-SH Creating a Terrain from Point Cloud Data</p> <p>Bentley</p> <p>This course will cover how to create a terrain model from point cloud data. You will learn how to attach point cloud data, view the point cloud data, create the terrain model from the point cloud data and also how to add breaklines to the point cloud terrain model. You will also learn how to combine and merge point cloud data with field survey data to create a complete terrain model.</p> | <p>* W-1-M FDOT Connect Plan Development Workflows</p> <p>ACC-C-FDOT</p> <p>Learn the tools for Plans Development workflows for FDOT projects.</p> |
| 11:00-12:00 | <p>Project data flow through digital asset lifecycle management</p> <p>Trimble</p> <p>Throughout the project lifecycle, data is being created or collected. From design data to inspection forms, there are a variety of data sources and formats requiring different accessibility and interaction. Access to data and collaboration play a key role in the success of a project. The Trimble way, under budget and ahead of schedule promoting communication, efficiency, and sustainability. In this session, we will follow a real example of data workflow through design, site data collection and eventually maintenance of a project. Quadri, connecting our field and software solutions to one another and with third party integrations, is an integral part of this seamless workflow.</p> | <p>ProjectWise: The Benefits of Plotting ORD Files with ICS for PDF</p> <p>Bentley</p> <p>Benefits of plotting ORD files with ICS for PDF</p> | <p>* OpenBuildings Designer – Information Modeling in 3D of a Transit Station</p> <p>Bentley</p> <p>* OpenBuildings Designer – Information Modeling in 3D of a Transit Station</p> | <p>FDOT Civil 3D Code Set Styles for Assemblies and Sub-Assemblies</p> <p>FDOT</p> <p>Civil3D - Code Set Styles for assemblies and sub-assemblies.</p> | <p>FDOT General Workspace Setup Configuration and Troubleshooting</p> <p>FDOT</p> <p>Review of FDOT workspace setup, configurations, and general troubleshooting</p> | <p>** Understanding Survey Feature Definitions</p> <p>Bentley</p> <p>This course will review how raw field codes are mapped into a DGN file when processed with the Survey product. It will show the relationship between field codes and Feature Definitions that have been configured to display various survey features and how to control those settings.</p> | | | | |
| 1:30-2:30 | <p>* Florida DOT Roadway Volume Verification Software</p> <p>Trimble</p> <p>Using Trimble Business Center, the Florida Roadway CAD cross sections and surface models can be imported and used to create Earthwork volumes. We will walk through a few samples of importing data and verifying Roadway volumes with Station by Station Cross Section reports and Surface to Surface Volume calculations.</p> | <p>ProjectWise: Configuring Rules-Based Workflows in ProjectWise</p> <p>Bentley</p> <p>Configuring rules-based workflows in ProjectWise.</p> | <p>* OpenBuildings Designer for Road Infrastructure – Design of Support Buildings and Structures</p> <p>Bentley</p> <p>* OpenBuildings Designer for Road Infrastructure – Design of Support Buildings and Structures</p> | <p>Pushin' Dirt – Grading Tricks in Civil 3D</p> <p>Mead & Hunt</p> <p>Grading optimization</p> | <p>* Save time & money with parametric workflows for 3D/FEA modeling & design code checks</p> <p>OpenBIM Platform</p> <p>This session describes a holistic approach to bridge analysis and design with OpenBIM Platform technology. The proposed approach promotes data-rich models to create a true digital twin where any parameter changes in the 3D model & FEM are applied concurrently, design code check reports and the workflows can be generated parametrically, customized, and reused. It brings valuable efficiency to analysis and design processes, design-build projects, and digital twin practices by automating the iterative tasks for bridge engineers and making the level of detail flexible for all stakeholders.</p> | <p>FDOT Plan Label Automation Tools</p> <p>FDOT</p> <p>Annotation Manager Fast Favorite Manager Civil Label Manager</p> | <p>W-2-SC I Getting Started with 3D in MicroStation CONNECT Edition</p> <p>Bentley</p> <p>This course is for MicroStation CONNECT users from any discipline, modeling in 3D and using meshes along with solids and surfaces. It covers various methods of mesh creation such as from a pair of Curves, Contours, Points, Grid etc. Subsequent mesh operations like Trim, Extrude, Boolean Difference (Subtract), Project, Analyse (Measure Volume) etc. are covered.</p> | <p>W-2-SC II Photorealistic Rendering and Animation in MicroStation CONNECT Edition.</p> <p>Bentley</p> <p>This course will teach you how to incorporate Visualization and Animation in your 3D Models. Learn how to setup camera, assign materials, setup your lighting and how to do Basic Keyframe animation.</p> | <p>** W-2-SH Right of Way Fundamentals</p> <p>Bentley</p> <p>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.</p> | |
| 2:45-3:45 | <p>Digital Design & Construction workflows including latest technology preview</p> <p>Trimble</p> <p>This session focuses on Trimble's newest core technologies Quadri & SiteVision that are pivotal in both the storage, sharing, translating, and collaboration as well as visualization of 3D Construction data, and their associated Digital Workflows.</p> | <p>ProjectWise: Delivering Deliverables with PWDOM</p> <p>Bentley</p> <p>Delivering deliverables with ProjectWise Deliverables Management</p> | <p>* Understanding Terrain Models</p> <p>Bentley</p> <p>Learn the tools and techniques behind these dynamic terrain models as well as the do's and don'ts with managing multiple terrain models.</p> | <p>FVE CRASHED AGAIN! – Tips & Tricks to Improve Stability and Efficiency in Civil 3D</p> <p>Mead & Hunt</p> <p>Tips and Tricks to Improve Stability and Efficiency in CID</p> | <p>* Analysis & Design- Complex Curved Steel Girder Bridge - OpenBIM workflow and design code checks</p> <p>OpenBIM Platform</p> <p>In this session, OpenBIM will demonstrate how to analyze and design a Complex Curved Steel Girder Bridge utilizing the reusable parametric workflow. The demo includes entering bridge geometry, superstructure, and substructure data, generating construction stages, and running the FEA on the cloud to get detailed analysis results including influence surface based live load analysis and staged construction analysis, and finally how to read the design code check reports.</p> | <p>FDOT CADD QC</p> <p>FDOT</p> <p>FDOT reviews tools and procedures for CADD Compliance inside OpenRoads Designer</p> | | | | |
| 4:15-5:15 | <p>Use iTwin Design Review to Share and Collaborate on Design Models</p> <p>Bentley</p> <p>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.</p> | <p>Templates Deconstructed</p> <p>Bentley</p> <p>The discussion will cover tips, techniques and challenges to consider when developing OpenRoads Designer workspaces</p> | <p>Workspace Conversion - Survey Foot to International Foot</p> <p>National Institute of Standards and Technology (NIST) is retiring the Survey Foot exception at the end of 2022. Many State Agencies Workspaces are developed using Survey Foot and these workspaces need to cater for the use of International Feet</p> | <p>* 3D Modeling for Non-Modelers QC</p> <p>Klinger Campo and Associates</p> <p>This session is tailored for professional engineers that will be required to sign and seal 3D deliverables and professionals in charge of design QC. Tools to review the design will be explored and demonstrated as well as some tips and tricks to make sure there are no errors or that errors will be identified in early stages of the design process.</p> | <p>* Plans Production with OBM</p> <p>Bentley</p> <p>Let's review the plans production process for the creation of bridge deliverables and the tools available in the software to accomplish that. Topics include Review of Model Types, Dynamic View Workflow, Review of Detailing Symbol Styles, Review of Display Styles, Specialized OBM Drawing Production Tools</p> | <p>FDOT CADD Delivery, including BIM files for Earthwork</p> <p>FDOT</p> <p>Overview of CADD Delivery requirements and new updates to the CADD Manual</p> | | | | |

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| 8:30-9:30 | <p>* Identify and Manage Utility Clashes in Transportation Projects</p> <p>Bentley</p> <p>What a 3D model-based workflow may look like for the average DOT using the 3D modeling and analysis workflow inside OpenRoads Designer Drainage and Utilities to help identify and manage utility clashes on transportation projects. How to import drainage/utility data using MicroStation - How to create 3D drainage/utility model from CAD graphics or survey - How to use the utility conflict detection tool - How custom properties (LIDAR and/or Item Types) can be used to document and manage utility conflict status - How to leverage the default and custom utility properties for reporting and data retention purposes</p> | <p>* Draining a Road Surface Effectively</p> <p>Bentley</p> <p>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.</p> | <p>* A Practical Approach to Precise Slopes</p> <p>Geosyntec Consultants, Inc.</p> <p>To grade a slope, it takes an understanding of a single slope, but to grade a compound slope, it takes an understanding of two slopes. We will discuss what a compound slope is, how to calculate it, and how to work with the compound slope in grading.</p> | <p>Road Characteristics from CAD Files (repeat)</p> <p>PHOCAZ</p> <p>Road Characteristics from CAD Files (repeat)</p> | <p>* Meshin' Around with OpenRoads Designer</p> <p>Bentley</p> <p>This presentation will cover the many nuances with computing quantities and calculating earthwork such as unsuitable materials, multiple substrata, and complex volumes with meshes.</p> | <p>FDOT/Trimble - Quadri</p> <p>FDOT</p> <p>FDOT Pilot Project overview with Quadri</p> | <p>* TH-1-SC I Plans Production with DBM, Updated</p> <p>Bentley</p> <p>Drawing sheet models, section callouts, annotation scales, dynamic views, display styles are some of the features that we will review during this workshop so we can produce plans directly from the 3D model.</p> | <p>* TH-1-SC II QuickStart for Geometry: Road</p> <p>Bentley</p> <p>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.</p> | <p>* TH-1-SH Using and Editing Terrain Models</p> <p>Bentley</p> <p>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.</p> | <p>* TH-1-H FDOT Connect - Traffic Plans</p> <p>ACEC-FDOT</p> <p>Fundamentals for developing Traffic Plans and utilizing FDOT Traffic Tools.</p> |
| 9:45-10:45 | <p>What's New in OpenRoads Designer 2022 - R1/R2 (repeat)</p> <p>Bentley</p> <p>The presenter will be showcasing the latest additions to OpenRoads Designer</p> | <p>Creating Drainage Reports</p> <p>Bentley</p> <p>In this course, you will learn how to create reports using FlexTables. You will learn how to customize the FlexTables to show the desired data fields and formatting for the reports. FlexTables show data for one type of element - a catch basin or a manhole for example. You will learn how to combine the content of multiple FlexTables into a single Excel spreadsheet.</p> | <p>Matterport - 3D Scanning (Buildings)</p> <p>Mead & Hunt</p> <p>Transform any jobsite into a dimensionally-accurate digital twin with Matterport! Come see a live demonstration of scanning a space and find out how creating a walk-through model can save time and effort for anyone working on a job. We'll show how to extract point clouds of the model, and the best practices for scanning a space.</p> | <p>An Overview of Bluebeam Revu (repeat)</p> <p>DDSCAD</p> <p>This presentation will cover some of Bluebeam Revu's features and best practices when first using the program to manage your PDFs. We'll learn about customizing the interface and tools, along with the Comparison and Overlay functions. We'll also demonstrate the Dynamic Fill tool, Visual Search, and how to work with the same PDF at the same time with your colleagues via Bluebeam Studio Sessions.</p> | <p>Managing Construction Data in the Cloud (from the Office to the Field)</p> <p>Trimble</p> <p>Safety, Sustainability, Efficiency, Speed and Economics. Construction Data can now be sent over the cloud from the office to the field. Trimble will discuss and present how to manage the data workflow process. We will discuss best practices, the various software options and more to help show what the future of construction data and workflows look like.</p> | <p>FDOT Plan Set Manager (repeat)</p> <p>FDOT</p> <p>A new tool in FDOTConnect that replaces the old GEDPAX Sheet Navigator</p> | | | | |
| 11:00-12:00 | <p>FDOT/Bentley - SYNCHRO</p> <p>FDOT</p> <p>FDOT Pilot Project overview with Synchro</p> | <p>* Drainage Plans Production</p> <p>Bentley</p> <p>In this session, you will learn how to create and annotate plan, profile and cross section sheets. You will learn how to create Named Boundaries that will be used to generate plan, profile and cross section sheets. You will also learn about drawing models and sheet models that are used during the sheet creation process. Finally, you will learn how to add individual annotations to label specific location coordinates, station-offset values, elevations, and more.</p> | <p>All about 3D Scanning</p> <p>EMS, Inc.</p> <p>Anything related to 3D Scanning, reverse engineering and dimensional inspection. We have done presentations to user groups in the past. A good one we do is discuss the difference types of 3D scanning equipment, applications, software and uses. Here is a link to a great video showing some of the equipment we use and applications.</p> | <p>Data Comparison and Applications of UAS Imagery and LIDAR Systems</p> <p>TopoDOT</p> <p>In recent years the geospatial drone market has expanded dramatically. Drone based UAS LIDAR and imagery systems vast differences make it difficult to choose the right solution. This presentation aims to explore their differences from the point cloud processing aspect. We will examine the pros and cons of each system's dataset for practical survey and mapping applications such as topographies, bare earth, volumetrics, etc. Learn how data accuracy, density, intensity/color and other data characteristics affect a deliverable. We'll also show who to evaluate whether the data meets quality requirements for a certain application, and if it is suitable for automated feature extraction. Examples of automated extraction of break lines, surface models and asset identification will be demonstrated. Additionally, we will discuss the role of drone systems in supplementing other platforms for fusion projects and show some successful case studies.</p> | <p>** Using Geometry Builder to Define (Right of Way) Geometry (repeat)</p> <p>Bentley</p> <p>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.</p> | <p>FDOT Automated Quantities FAQs</p> <p>FDOT</p> <p>Join Kari as she share frequently asked questions and troubleshooting tips.</p> | <p>* TH-2-SC I Analytical Design of Concrete Bridges</p> <p>Bentley</p> <p>After modeling the bridge in OpenBridge Modeler, the next step is to perform the analytical design. Let's use the interoperability with LEAP Bridge Concrete to analyze and design the bridge. Add the live loads, load combinations and come up with the proper strands arrangement and rebar reinforcement for your beams, piers and abutments.</p> | <p>* TH-2-SC II Defining Template End Conditions</p> <p>Bentley</p> <p>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 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.</p> | <p>* TH-2-SH Designing Inlets to Collect Runoff</p> <p>Bentley</p> <p>In this class you will learn how to place inlets and delineate catchments, to collect runoff from a road surface. You will also learn how to evaluate whether the inlet efficiencies and the spread widths of the flows at the inlets are acceptable, and adjust the inlet positions to achieve this.</p> | |
| 1:30-2:30 | <p>SYNCHRO Model considerations for Construction</p> <p>Bentley</p> <p>Bentley construction management platform is a robust system to streamline activities from pre construction to construction execution. Get an overview of the product line and how Bentley provides a "single source of truth" across the entire portfolio, from a 2D, 3D, or 4D/5D workflow.</p> | <p>Annotating Drainage Profiles</p> <p>Bentley</p> <p>If you ever wondered how to create drainage pipe profiles and annotate drainage structures? Then this session is for you. This presentation will discuss creating pipe profiles using the Drainage and Utilities tool, creating Named Boundaries that will be used to place those pipe profiles on sheets and how to add individual annotations to label specific location coordinates, station, elevations, and more.</p> | <p>Coordinate Transformation</p> <p>Geosyntec Consultants, Inc.</p> <p>Review the basic concepts of transformations and how these work in Civil 3D and with a parameter 3d conformal transformation. Perform a manual transformation from plane to state plane coordinates. Also review the HGS tools for calculating the transformation on your 2d or 3d point data.</p> | <p>** Using Point Clouds Beyond Survey</p> <p>TopoDOT</p> <p>Looking to get more out of your data past "as built" surveys? Want to leverage your pointcloud for the design process? Learn about the latest data analysis and monitoring tools available for you in TopoDOT*. The presenters will demonstrate examples of the Speed Advisory tool to analyze speed based on the road curvature, gathering roadway geometry and critical measurements, as well as the Road Condition Analysis to detect and report pavement surface distress and more. Updates on other analysis tools will also be demonstrated. Don't miss the opportunity to discover new ways to expand your business with tools you already own.</p> | <p>* Roadway Plans Methodology and More (repeat)</p> <p>Bentley</p> <p>Best practices, tips and workflows for creating and managing plans sheets assembly.</p> | <p>FDOT CADD Compliance Checklist Changes (repeat)</p> <p>FDOT</p> <p>Overview of Changes made the Compliance Checklist and how it will impact you.</p> | | | | <p>* TH-2-H FDOT Connect - Automated Quantities</p> <p>ACEC-FDOT</p> <p>This course details the FDOT Quantity workflow developed for the Summary of Quantity Reports required for the Estimated Quantities Report PDF. Learn to use the tools, single-pay item information to 2D and 3D design elements, calculate quantities and export quantity reports.</p> |
| 2:45-3:45 | <p>SYNCHRO Construction Solution</p> <p>Bentley</p> <p>We have created some great designs. Now, take the design to the field with SYNCHRO, whether it's a 2D, 3D, or hybrid deliverable. See how the field data is collected, the project tasks and schedule are managed, and how users or RFI's may be sent for review all in a single connected system, whether it is a scheduling issue or a design RFI. Learn about these tools to bridge the divide between design and construction.</p> | <p>Drainage - Plans Production Tips and tricks</p> <p>Bentley</p> <p>Tips and tricks using OpenRoads Designer Drainage and Utilities for plans production</p> | <p>* Creating Plan Sheets for non-linear areas (repeat)</p> <p>Bentley</p> <p>Learn how to create plan sheets for non-linear areas such as site development, intersections, and parking areas.</p> | <p>Advanced Template Tips and Tricks</p> <p>RS&H</p> <p>Take a deep dive with some of the more advanced and complex nuances of template design. From multi-layered display rules and template math to 3D line styles and annotation, there is plenty to uncover. Please note that this is an ADVANCED template course and will assume you have a basic understanding of roadway templates.</p> | <p>Digitally Sign & Seal Documents for Submittal to FDOT with Bluebeam Revu (repeat)</p> <p>Bentley</p> <p>The Florida Department of Transportation (FDOT) requires that all submittals are digitally signed and sealed with third party authorized signatures. This presentation will explain the process and demonstrate a concise and consistent set of methods for digitally signing submittals properly. An RFIman, a Bluebeam Certified Instructor with Digital Drafting Systems, has worked with many municipalities and trained them in the procedure for sending and receiving documents. Submittal markups can be flattened before being signed, and shop drawing stamps and official seals can be included in digital signatures.</p> | <p>* FDOT Building Custom Drainage Features in OpenRoads Designer (repeat)</p> <p>FDOT</p> <p>Using OpenRoads and MicroStation to build custom 3D Drainage Structures</p> | <p>* TH-3-SC I Analytical Design of Steel Bridges</p> <p>Bentley</p> <p>Built-up girders, cross frames, stiffeners, field girders, filler plates and shear studs are some of the elements that can be challenging in modeling a steel bridge. Moreover, all of that information needs to be transferred or duplicated when calculating the bridge in the analytical software. Let's discover during this presentation how OpenRoads Designer brings interoperability to the back and forth between the physical and analytical model to streamline the process of modeling and designing a bridge.</p> | <p>TH-3-SC II OpenBuildings Designer: Managing Spaces, Assets, and Schedules of a 3D Transit Station</p> <p>Bentley</p> <p>This new hands-on session contains exercises for getting started with Bentley's BIM solution, OpenBuildings Designer. The students will start with a partially complete BIM model of a small above ground transportation station and then add, create and manage intelligent building content. Exercises start with Space Planning tools, placing transportation related furniture, fixtures and equipment, along with placing mechanical and plumbing systems and assemblies. Also, automatic drawing annotation and schedules will be explored. Prerequisite is basic knowledge of MicroStation and AccuDraw.</p> | <p>* TH-3-SH Designing Pipes to Convey Runoff</p> <p>Bentley</p> <p>In this class, you will learn how to design pipes to convey the runoff that has been collected by the inlets to an outfall. The pipes will be placed with an initial size and slope; then they will be designed hydraulically to calculate the sizes needed to accommodate flow without surcharging.</p> | |
| 4:15-5:15 | <p>SYNCHRO Design to Construction</p> <p>Bentley</p> <p>Examine the challenges of moving from a 2D set of plans to a 3D model deliverable for construction. What is LOD? How does it impact design and impact or elevate construction integration of the design. How does one begin the process of making sure design intent is preserved yet allow the contractor to build a cost and process efficient project from a model.</p> | <p>* Grading - It's not just Dirt (repeat)</p> <p>Bentley</p> <p>This presentation introduces some non-concord approaches to solving advanced grading problems.</p> | <p>* Understanding Terrain Models (repeat)</p> <p>Bentley</p> <p>Learn the tools and techniques behind these dynamic terrain models as well as the do's and don'ts with managing multiple terrain models.</p> | <p>* Dynamic Profiling: A Guide to Interactive Geometry</p> <p>RS&H</p> <p>Back by popular demand, this session will focus on the interactivity between horizontal and vertical geometry. Dynamically tie profiles together to make a living breathing design file as well as do sketch-level 3D modeling during a project's concept phase. This session is great for those just getting started with Civil Tools and OAD.</p> | <p>* Florida DOT Roadway Volume Verification Software (repeat)</p> <p>Trimble</p> <p>Using Trimble Business Center, the Florida Roadway CAD cross sections and surface models can be imported and used to create Earthwork volumes. We will walk through a few samples of importing data and verifying Roadway volumes with Station by Station Cross Section reports and Surface to Surface Volume calculations.</p> | <p>FDOT BIM360</p> <p>FDOT</p> <p>FDOT shares BIM360 overview.</p> | | | | |

Legend
 * denotes FDOT credits
 ** denotes FPM CE Credits

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| 8:30-9:30 | <p>Item Types Enhancements in OpenRoads Designer 2022 Release 1</p> <p>Bentley</p> <p>OpenRoads Designer 2022 Release 1 includes many Item Type enhancements. Learn how you can easily write expressions that include civil properties with the new Copy Expression and IntelliSense capabilities. Discover how to define station and offset expressions so they values are always up to date! No more need for the Asset Manager to calculate static station and offset values that must be updated manually. Many other enhancements such as conditional pick lists, single source of truth for drainage elements, and much more will also be discussed.</p> | <p>BIM Enlivened – OpenBuildings Designer and LumenRT</p> <p>Bentley</p> <p>BIM Enlivened – OpenBuildings Designer and LumenRT</p> | <p>FDOT CADD Model Element Properties (repeat)</p> <p>FDOT</p> <p>CADD Features built with Properties for Asset Information</p> | <p>* Increase Efficiency- Steel Bridge Projects – Physical to Analytical Modeling and Design</p> <p>Bentley</p> <p>Built-up girders, cross frames, stiffeners, field splices, filler plates and shear studs are some of the elements that can be challenging in modeling a steel bridge. Moreover, all of that information needs to be transferred or duplicated when calculating the bridge in the analytical software. During the presentation, let's discover how OpenBridge Designer brings interoperability to the back and forth between the physical and analytical model to streamline the process of modeling and designing a bridge.</p> | <p>Enabling 3D Design Review and Collaboration with iTwin Design Review (repeat)</p> <p>Bentley</p> <p>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.</p> | <p>Sustainability impacts & benefits for Digital Construction Workflows</p> <p>Trimble</p> <p>Sustainability is becoming more and more of a priority with today's increasing construction challenges. Whether it be funding, community asks, or local goals, sustainability is at the core of infrastructure development and digital construction workflows can help achieve these goals. From concept to design & construction through to maintenance & operations, smart workflows contribute to sustainability. Trimble is building on this ethos, with integrated technologies that benefit environmental impact, and construction cost via reduction of CO2 emissions, improved efficiency & implementation efforts. In this session, we will be covering core technologies and workflows that underpin Trimble's digital delivery workflow for an infrastructure project, while analyzing sustainable contributions at every step, with an active pilot example. The solutions in this workflow include planning software, site hardware, collaboration platforms, augmented reality, asset management.</p> | <p>* F-1-SC1 Introduction to Drainage Layout and Hydraulics</p> <p>Bentley</p> <p>In this course we cover creating and designing a highway drainage system consisting of Inlets, Manholes, Outlets, Pipes, and Drainage Areas.</p> | <p>F-1-SC II Using Parametric Solids, Constraints, Variables and Variants</p> <p>Bentley</p> <p>This course contains exercises that will assist experienced 2D MicroStation users become familiar with 3D tools and concepts, specifically parametric solids, 2D and 3D constraints, variables, variants and parametric cells within the MicroStation CONNECT Edition.</p> | <p>F-1-SH AccuDraw Basics</p> <p>Bentley</p> <p>In this course, you will learn how to navigate in 2D and 3D design space using AccuDraw. You will learn the basic features, functionality, usage and related settings and shortcuts required for this purpose. This geometrically translates into relocation of the origin and reorientation of the coordinate axes. Starting from the need for a coordinate system, its types and role in the modeling process, its embodiment in AccuDraw is laid out. The main parts of AccuDraw – the Compass and the Coordinate Window – and their role are covered. Besides the main function, other conveniences provided by AccuDraw are also covered like the auto placement of point, context based change of mode and orientation of axes, access to snap modes, tool settings etc. which add to the speed and thus efficiency.</p> | <p>* F-1-H: FDOT Connect - Existing Modeling</p> <p>ACEC-FDOT</p> <p>Creating a 3D model for existing features to include: hard surfaces, utilities, drainage structures, and soil borings.</p> | |
| 9:45-10:45 | <p>* Grading Parallel Surfaces</p> <p>Geosyntec Consultants, Inc.</p> <p>Review the geometry and mathematics of a surface's breaklines to calculate its horizontal and vertical offset to provide a parallel duplication of the surface. This application can be used to develop surfaces such as subgrade, base, vegetative cover, etc.</p> | <p>* Corridor Side Slope Design and Modeling (repeat)</p> <p>Bentley</p> <p>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: *How to use various methods to target model elements and control end conditions, *How to tie end conditions to model elements (such as walls, abutments, and special ditches), and *To use target aliasing, end condition exceptions, and other end condition methods to create side slopes.</p> | <p>FDOT General Workspace Setup Configuration and Troubleshooting (repeat)</p> <p>FDOT</p> <p>Review of FDOT workspace setup, configurations, and general troubleshooting</p> | <p>Custom Item types in OBM</p> <p>Bentley</p> <p>Join us in this presentation as we will explore the use of item types in a bridge project context.</p> | <p>Templates Deconstructed (repeat)</p> <p>Bentley</p> <p>Deep dive into the template editor and a breakdown of the template structure and how it gets processed to help the user design better/more usable templates</p> | <p>* Changing the Paradigm - Model-driven Deliverables</p> <p>Bentley</p> <p>A discussion on model driven deliverables as a replacement for plans</p> | | | | | |
| 11:00-12:00 | <p>* Earthwork / Quantities</p> <p>3D Highway Engineering</p> <p>Earthwork / Quantities</p> | <p>Best Practices for Model Management</p> <p>Patel, Green & Assoc.</p> <p>In the ORD world where workflows and processes seem to be ever-evolving, this session outlines some best practices for managing your 3D models, whether it's for a traditional plan set or NexGen. Join in to garner advice on model organization, file federation, template creation strategies, documentation tactics, and how to ultimately pull it all together for review and delivery.</p> | <p>FDOT Future: Digital Delivery (repeat)</p> <p>FDOT</p> <p>Discussion of transportation industry and ultimate goal of FDOT CADD in reaching Model as the Legal Document</p> | <p>Tips and Tricks using OpenBridge</p> <p>Bentley</p> <p>This is a review of our most common questions asked during our training classes. How to model multiple piers in the same support line, use of point controls in decks, unit definitions, etc.</p> | <p>Trouble Shooting and Tips for Workspace Development</p> <p>FDOT</p> <p>The discussion will cover tips, techniques and challenges to consider when developing OpenRoads Designer workspaces</p> | <p>Project data flow through digital asset lifecycle management (repeat)</p> <p>Trimble</p> <p>Throughout the project lifecycle, data is being created or collected. From design data to inspection forms, there are a variety of data sources and formats requiring different accessibility and interaction. Access to data and collaboration play a key role in the success of a project the Trimble way, under budget and ahead of schedule promoting communication, efficiency, and sustainability. In this session, we will follow a real example of data workflow through design, site data collection and eventually maintenance of a project. Quadri, connecting our field and software solutions to one another and with third party integrations, is an integral part of this seamless workflow.</p> | | <p>F-2-SC II MicroStation CONNECT Edition Tips and Tricks</p> <p>Bentley</p> <p>MicroStation CONNECT Edition Tips and Tricks</p> | | <p>* F-2-H: FDOT Connect - Digital Delivery Design Review</p> <p>ACEC-FDOT</p> <p>This workshop will provide knowledge, information and updates on FDOT requirements for model-centric design, delivering BIM files as legal contract documents, QA/QC of BIM files, and Design Review of BIM files.</p> | |
| 1:30-2:30 | <p>* Above and Beyond Corridor Modeling (repeat)</p> <p>Bentley</p> <p>A "deep dive" presentation into corridor modeling methods that you may have never thought possible.</p> | <p>* Modeling Retaining Walls</p> <p>Adam Moorman</p> <p>This presentation will discuss modeling various types of retaining walls in ORD. We will demonstrate how to create templates for MSE Walls that automates most of the modeling. There will also be a heavy focus on the importance of collaboration between the roadway design team and structures design team when performing these types design.</p> | <p>FDOT Traffic Tool Updates (repeat)</p> <p>FDOT</p> <p>Review of FDOT Traffic Tools</p> | <p>Tips and Tricks for Automated Quantities on RRR Projects</p> <p>RSSB</p> <p>Learn some of the issues encountered with automated quantities for a RRR concrete rehabilitation project in OpenRoads Designer and how to run quantities without a 3D model. Includes overview of the FDOT automated quantities workflow, item types, takeoff manager, summary report creation and producing the estimated quantities report.</p> | <p>FDOT Structures: Workflow Updates (repeat)</p> <p>FDOT</p> <p>Important new updates to various tools for Bridge Design, Modeling and Plans Production</p> | <p>* Advanced Techniques with Quantities and Earthworks</p> <p>Bentley</p> <p>This presentation will cover the many nuances with computing quantities and calculating earthwork such as unsuitable materials, multiple substrata, and complex volumes</p> | <p>* F-2-SC1 Importing Drainage from Excel Data</p> <p>Bentley</p> <p>In this course, you will learn how to use Modelbuilder connections and mappings to import drainage data from Excel spreadsheets and build a 3D drainage model. You will then learn how to use Modelbuilder to import updated spreadsheets to update the 3D model.</p> | | <p>* F-2-SH Site Modeling and Non-Corridor Modeling</p> <p>Bentley</p> <p>The intent of this course is to demonstrate how to turn 2D elements into 3D elements by adding profiles and elevations to civil elements that are typically found outside the limits of a roadway corridor (i.e. civil sites, building pads, parking lots, ponds, infield grading, bridge abutment grading, etc.) In this course you are going to learn how to create 3D elements (or features) and Proposed Terrains using fundamental site modeling and non-corridor modeling techniques. We will utilize the vertical geometry tools along with linear templates and the terrain modeling tools throughout this course. In the first part of the course you are going to learn how to grade a cell tower site that is made up of a tower pad, yard and driveway. The second part of the course you will learn how to create an infield pond between corridors.</p> | | |
| 2:45-3:45 | <p>What Everyone Should Know about Civil AccuDraw (repeat)</p> <p>Bentley</p> <p>Every quality toolbox includes specialty tools that simplify specific tasks. You don't need specialty tools all the time, but they offer substantial benefits 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.</p> | <p>* Modeling Rebar in OpenBridge Modeler</p> <p>Atkins</p> <p>Learn about modeling Rebar in OpenBridge Modeler</p> | <p>FDOT CADD Delivery: including BIM files for Earthwork (repeat)</p> <p>FDOT</p> <p>Overview of CADD Delivery requirements and new updates to the CADD Manual</p> | <p>FDOT CADD QC (repeat)</p> <p>FDOT</p> <p>FDOT reviews tools and procedures for CADD Compliance inside OpenRoads Designer</p> | <p>FDOT Structures: Automated Bridge Quantities (repeat)</p> <p>FDOT</p> <p>How to build the Summary of Structures from OpenBridge Modeler with FDOTConnect</p> | <p>* Today's Plans - Tomorrow's Models</p> <p>Bentley</p> <p>Building Information Modeling (BIM) is the process of delivering and operating built assets using well-structured digital information that all the necessary parties have access to. This presentation discusses how OpenRoads Designer helps you deliver BIM models</p> | | | | | |

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