

IBUG Spring 2017 Course Descriptions

Dual Installations of IDOT Standards (Civil Solutions)

Still have the need for GeoPak SS2, but want to use GeoPak SS4? This class will walk through the setup of dual standards. An understanding of how to set up and manage both standards.

IDOT Features - The Basis for Everything (Civil Solutions)

This hands-on course teaches the workflows and techniques required to layout the horizontal geometry for a complex interchange including lanes, transitions, tapers and ramps. In addition to using multiple horizontal geometry tools you will use Civil AccuDraw and learning about the geometry rules created throughout the process.

Project Explorer (Civil Solutions)

The Project Explorer dialog is an essential part of working with the OpenRoads technology. It allows the user to create shortcuts to all kinds of project data such as other design files, office documents and PDF documents. By doing so you are adding value to your design. This session will demonstrate the functionality of the Project Explorer dialog as well as a workflow on how to create, manage, and use Link Sets.

Terrain Models (Civil Solutions)

How to use and create the new terrain models from TIN and DTM files. Best practices and creation of complex terrains.

Generating Roadway Annotation, Plan and Section Labeling (IBUG)

Best practices for optimizing drawing production workflows by teaching methods to embellish a set of roadway plans.

Civil AccuDraw and MicroStation AccuDraw (IBUG)

Produce accurate, precision drawings faster than ever before! Leverage your existing knowledge of MicroStation AccuDraw and learn when to incorporate Civil AccuDraw – a civil-specific precision drafting tool that anticipates the user's intent and streamlines the drafting process by supporting civil-specific drafting conventions.

Creating Centerline Geometry (Bentley)

This course teaches how to import, create, edit, and view horizontal and vertical centerline geometry. After completing this course you will have a solid understanding of not only the OpenRoads centerline geometry tools but more importantly the design intent captured by the OpenRoads Technology.

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Using Civil Cells in OpenRoads (Bentley)

This course is for both new users and users upgrading from previous versions of PowerCivil, Power GEOPAK, MX, and Power InRoads software to use the OpenRoads Technology. 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.

Templates - Using and Editing (Bentley)

This course teaches how to efficiently modify and use existing templates, such as those delivered in the Bentley Civil Workspace, for your project situations. You will learn how to manage template libraries and edit templates to satisfy project specifications including minor edits such as pavement width, pavement slope, and end condition (cut/fill) treatments. You will also learn how to replace entire sections of templates with alternate components such as adding curb & gutter to a template.

Basic Workspace Development (Bentley)

This course is designed to show you how to create a workspace by examining configuration files. The workspace consists of many configuration files that are read in a specific order to point to locations for files and setup the way MicroStation handles those files.

Developing CAD Standards with MicroStation (Bentley)

In this course you will learn the skills and techniques necessary to manage a MicroStation-based design and drafting environment, with an emphasis on project management and standardization.

Quickstart for Roadway Modeling using OpenRoads Technology (Bentley)

This course is for users with some prior experience using OpenRoads Technology. In the course, you will learn several techniques that can be used to model simple intersections, such as approaches and driveways. You will learn how to use several of the vertical geometry tools, how to apply a linear template, and surface templates.

Before completing this course, we recommend you have a good working knowledge of the OpenRoads tools. If you have not already done so, a good starting point would be to complete both the Quickstart for Terrain & Geometry Using OpenRoads as well as the Quickstart for Roadway Modeling Using OpenRoads courses.

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Mobility in ProjectWise (Bentley)

Workshop: Learn how to bring it all together by Implementing digital strategies that drive business performance.

Automate ProjectWise Administration Tasks with PowerShell Scripting(Bentley)

ProjectWise Administrators simplify your administrative tasks. Learn how to automate processes such as user administration, database creation, and more with PowerShell scripting in ProjectWise.

Workspace Management in ProjectWise (Bentley)

Workspace configuration provides flexibility. Create your own custom environment based on specific discipline or project requirements.

Using Bluebeam Revu 2017 for Project Collaboration (tsaADVET)

Get the most out of Bluebeam for your project.

Creating a Realistic Model with Pavement Markings, Signs and other Objects (Bentley)

In this course, you will learn how to create a realistic model with pavement markings, signs, and other objects.

Best Practices - Creating Terrain Models from Point Clouds (Bentley)

This presentation provides best practices to filter point cloud data using Descartes to create intelligent and efficient OpenRoads Terrain Models. Terrain Models created from point cloud data in this manner will be much more useful to your projects.

Large Projects. Working with Reference Files (Bentley)

Take a look on how file federation allows you to handle large projects. Examine how file structure and referencing can benefit you during a projects lifecycle. Also look into other factors that will streamline performance of models which will aid you on starting new projects in way that they will scale to meet your needs as the project grows in complexity.

Introduction to Subsurface Utility Engineering and StormCAD for OpenRoads (Bentley)

Discover the capabilities of the Subsurface Utility Engineering and StormCAD for OpenRoads products. You will learn what you can do with each application as well as the differences and the overlaps between the two toolsets. Finally, we will discuss licensing so you understand which products you need and the advantages of Open Access in regards to the utilities tools in OpenRoads.

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Consistent Drawing Production with Annotation Scale (Bentley)

Are you using Annotation Scale? Do you want your design team to spend less project time scaling text, dimensions, detailing symbols, cells, references, and other geometry? Attend this lecture and learn the skills needed to implement a global setting called Annotation Scale. Annotation scale is essentially a plot scale that may be applied to different element types to scale or re-scale project data relative to the final print scale. This MicroStation feature allows the re-use of data among project participants at multiple scales without the need to redraw data or have duplication in a drawing. The lecture will focus on how annotation scale can be implemented as part of your civil project standards, and how it may be integrated it into your drawing production workflows.

Review and Markups for Engineering Projects (Bentley)

This session will focus on the new features of the newly released Bluebeam Revu 2017 product. These include Dynamic Fill, Slope & Rise calculations, Quantity enhancements and many more.

Horizontal Alignments IDOT Features (Civil Solutions)

This hands-on course teaches the workflows and techniques required to layout the horizontal geometry for a complex interchange including lanes, transitions, tapers and ramps. In addition to using multiple horizontal geometry tools you will use Civil AccuDraw and learning about the geometry rules created throughout the process.

Vertical Alignments - IDOT Features (Civil Solutions)

Intermediate- During this hands-on course you will learn to use vertical geometry tools to add 3D elevation to existing 2D geometry elements that define edges of pavement, islands, and medians in an inter-section. The resulting 3D geometry elements define the skeleton of the intersection model.

SUE and SUDA - Subsurface Utilities (Bentley)

This hands-on training guides you thru the subsurface utility engineering tools used to create 3d models of storm, sanitary, and other underground utility networks. topics covered include model-ing of storm water networks and creating models of utilities from survey data. See the drainage design capabilities of subsurface utilities design and analysis in action. see hydraulics calculations from basic to advanced, in one package. hydraulic capabilities are integrated with open-roads, including high definition 3d model.

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Walk through and Fly through Animations of Interior and Exterior Scenes (Bentley)

This course contains exercises to help you learn how to set up Fly-through and Walk-through animations of interior and exterior scenes. You will also learn how to animate solar time and how to use a Non Linear Editor (NLE) to produce high quality media files such as MP4 is also covered.

Traffic Animations (Bentley)

You have your roadway modeled and it is looking good. The next logical step in the visualization process is to add striping and a few trees and then animate vehicles along the roadway. You will start with enhancing the elements that represent your roads, then you will add vehicles to your animation. You will also add lanes of traffic and attach intelligence to the vehicles so that they enter and exit those lanes as they would in real life. You will add animation cameras to the vehicles for a driver's view of the roadway system. Finally, you will render content such as rocks and trees to add another dimension of reality to your animation.

Advanced Workspace Development (IBUG)

Get the most out of your workspace.

Quickstart using ContextCapture (Bentley)

This Quickstart is an introduction to the ContextCapture software where you will learn how to process photos to create a 3D mesh surface.

Approach and Driveway Modeling in OpenRoads (Bentley)

This course is for users with some prior experience using OpenRoads Technology. In the course, you will learn several techniques that can be used to model simple intersections, such as approaches and driveways. You will learn how to use several of the vertical geometry tools, how to apply a linear template, and surface templates.

Before completing this course, we recommend you have a good working knowledge of the OpenRoads tools. If you have not already done so, a good starting point would be to complete both the Quickstart for Terrain & Geometry Using OpenRoads as well as the Quickstart for Roadway Modeling Using OpenRoads courses.

Defining End Conditions (Bentley)

This hands-on training teaches how to create and make major modifications to template side slopes (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.

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Processing Survey Data (IBUG)

Get your survey data into MicroStation right.

Mastering the Corridor (Bentley)

This hands-on training teaches how to create and make major modifications to template side slopes (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.

Modeling a Superelevated Divided Highway (Bentley)

In this course, you will learn to model a divided highway with superelevation in a corridor model.

Modeling an Interchange Ramp

This course teaches how to model a freeway exit ramp. The workflow described in this course is based on templates and geometry that everyone can use and apply to a wide variety of ramp configurations. The scope of the course is limited to modeling the paved area of the ramp.

LumenRT (Bentley)

Bentley LumenRT differs from traditional offline rendering software and delivers an always-rendered immersive experience more typical of gaming environments. Built for infrastructure projects, Bentley LumenRT allows project teams to clearly communicate design and construction intent with very real and enlivened environmental context.

Deployment and Integrations with AutoDesk Products (Bentley)

Live Lecture: Don't struggle managing distributed projects over the WAN. Learn how to integrate Autodesk products with ProjectWise and solve your supply chain challenges.

Best Practice - Design Time Visualization (Bentley)

In this session, you will learn how you can quickly create 3D visualizations that will impress your client and let the stakeholders understand your design.

Big Data and Deliverables - Are Manual Processes Getting in the Way? (Bentley)

Are manual process getting in the way? Are you struggling with deliverables today? How are you tracking them? It's time to move from spreadsheets.

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Printing the Plan Set Using Print Organizer (IBUG)

In this course you will learn how to use Print Organizer to create, manage, and publish project deliverables. Print Organizer is a batch printing utility for printing and reprinting sets of files and models that are stored in a print set file (.pset). You will learn about printing capabilities to include usage of print styles, pen tables and named expressions. In addition, you will learn how the Print Organizer integrates with other dialogs such as the Project Explorer.

Civil Visualizations in MicroStation V8i (Bentley)

Mirror the real world, by enabling your Civil Design Projects with realistic visualization. Create impressive lifelike renderings faster so that you can secure stakeholder buy-in and increase your project win-rate. Micro Station's Visualization capabilities provide greater ease-of-use and unmatched photorealistic results, bringing world class visualization to any MicroStation user. Does your Civil Design team currently spend the majority of their time doing the designing of the roadway model , not necessarily the environment or context of the roadway model?

Creating Traffic Animations (Bentley)

You have your roadway modeled and it is looking good. The next logical step in the visualization process is to add striping and a few trees and then animate vehicles along the roadway. You will start with enhancing the elements that represent your roads, then you will add vehicles to your animation. You will also add lanes of traffic and attach intelligence to the vehicles so that they enter and exit those lanes as they would in real life. You will add animation cameras to the vehicles for a driver's view of the roadway system. Finally, you will render content such as rocks and trees to add another dimension of reality to your animation.

Converting from GEOPAK to OpenRoads (Civil Solutions)

Intermediate- Get your GeoPak data into Open Roads This workshop focuses on importing from the GPK to Open Roads.

Plan Sheets in OpenRoads SS4 (Civil Solutions)

Knowing the needs of GeoPak is paramount in creating sheets. Students will walk through creating sheets and all prerequisites.

First Corridor - IDOT Features (Civil Solutions)

Intermediate - Model a divided highway with superelevation in a corridor using IDOT standards.

Superelevation (Civil Solutions)

Creating superelevations is a critical part of most roadway projects. Students will create, modify, and import superelevation shapes.

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Cross Section Labeling and Creating Sheets (Civil Solutions)

During this hands-on course, you will learn how to create cross section sheets along a previously designed corridor, annotate proposed cross sections, compute end-area earthwork volumes, using IDOT CADD Standards.

End Conditions - IDOT Features (Civil Solutions)

This advanced workshop studies in-depth: End Conditions, Component Display Rules, Overlay Components, and Linear Templates for modeling of Roadway Corridors. Prerequisite: Intended for Intermediate to Advanced users with some experience with template development.

Overlay, Striping and Widening (Bentley)

During this course, you will learn to create templates that include overlay and stripping/milling existing pavement surfaces. You will also learn to use the Overlay Vertical Adjustments tool to calculate new vertical alignments that result in minimizing or specific depths of overlay and stripping/milling.

Pad and Parking Lot Modeling (Bentley)

In this course, you will learn how to add vertical information to 2D Pad and Parking Lot elements and use Linear Templates for slopes that tie into the existing terrain.

How the 3D Linear Method Helps You Create Efficient and Accurate Models (Terra)

A new method for creating CADD models from TERRA.

Advanced Processing of Survey Data (IBUG)

Best Practices for importing Survey data.

Quickstart for Terrain and Geometry using OpenRoads Technology (Bentley)

This course is for both new users and users upgrading from previous versions of PowerCivil, Power GEOPAK, MX, and Power InRoads software to use the OpenRoads Technology SELECTseries 4. You will learn to use the software to setup working files, attach existing ground terrain and aerial imagery, and define horizontal and vertical geometry. After completing this course we recommend you continue your learning with the Quickstart for Roadway Modeling Using OpenRoads course where you will learn how to model a roadway corridor and intersection.

Quickstart for Roadway Designers using MicroStation (Bentley)

Learn how to create a set of 2D roadway plans in accordance with standards using MicroStation.

Ask MicroStation Experts (Bentley)

Have a problem that doesn't fit one of our workshops or lectures?
You have questions, they have answers.

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Batch Processing and Automation in MicroStation (IBUG)

This hands on course teaches the basics of an underutilized tool within MicroStation, Batch Process. It will explain to the users how to create command files and apply multiple commands to files using the Batch Process dialog. A true time saver!

Best Practice - Creating Civil Cells (Bentley)

Examples of civil cell creation while focusing on the tools and methods to impart rules and relationships to the civil cell elements.

Best Practice - From Civil Model to Plan Set (Bentley)

Best Practices for using the Civil Model to create a Plan Set

Understanding Design Intent and How it Impacts OpenRoads (Bentley)

Design intent describes the geometry rules OpenRoads creates defining how geometry elements relate to other geometry elements and to graphic elements. You determine how rules are defined based on your actions and sequence when creating and editing geometry. Having a good understanding of what rules get created and when is essential when creating civil design models. During this session, we will discuss when rules are created, best practices for creating geometry (and rules) for different situations, and how and when it is appropriate to drop rules.

Working Effectively in the OpenRoads Modeling Environment (Bentley)

The OpenRoads modeling environment takes full advantage of the MicroStation platform's extensive modeling environment. Understanding how to work in multiple models, when to use a 2D model and when to use a 3D model, and how to manage references between models is necessary when working in OpenRoads. How 2D and 3D models are used is different in OpenRoads than it was when working in InRoads, GEOPAK, and MX. This session is a must see for both new users and existing InRoads, GEOPAK, and MX users. You will learn best practices for working in the OpenRoads modeling environment and gain a full understanding of how you work in 2D, when the software automatically creates 3D models, how to modify data in the 3D model, how to manage references, different ways to control which elements, objects, and references are visible, and how to change the rendered display of a view.

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Geotechnical Data for Civil Engineers (Bentley)

This lecture will introduce you to the new gINT Civil Tool which is based on the Bentley power platform and OpenRoads technology and delivered with gINT Professional and gINT Professional Plus products. You can use this tool to query, display in plan, display in 3D and display in a dynamic Civil profile any borehole from a gINT database. The files created in the gINT Civil tool can be utilized in any OpenRoads Technology enabled product. OpenRoads terrain models can be created for any borehole lithology and are useable as target terrains in corridor modeling. Geometries can be created in the tool or imported from a myriad of file types. OpenRoads geometries can be exported out and brought into gINT native for use in Fence diagrams.

Using gINT in a Civil Workflow (Bentley)

This lecture will introduce you to the gINT for Civil Tool. Available for InRoads and GEOPAK users, the free gINT for Civil Tool allows a direct connection of the gINT database with our Bentley Civil applications allowing civil and geotechnical designers to access gINT tools.