

IBUG Spring 2018 Workshop Descriptions

Advanced Workspace Development.

This is more of an advanced class!! It is recommended that you will have either taken The offered basic class before this one, or have previous experience with configurations. This 2-hour class will cover advanced workspace configuration of MicroStation Select Series 4.

Automated Corridor Modeling with Triggers and Switches

In this course, we will show you how to create triggers and switches that can be used to automatically display and un-display parts of your template. You will learn how to create a template that uses null points and display rules to toggle on/off parts of your template when used with linear geometry and corridor references. You will also learn how to create end conditions that seek and connect to linear geometry. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil SELECTseries 4 software.

Beyond Centerline Geometry – Using Civil Geometry to Create Roadway Plan Layout

In this workshop, we will explore how to use Civil Geometry tools to create a 2D roadway plan layout. You will learn how to create rule-based geometry for edge of pavement lines, shoulders and sidewalks. You will also learn how to create turn lanes and curve radii all while using Civil AccuDraw for precision input. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil SELECTseries 4 software.

BIM QuickStart A101: Modeling Walls, Doors and Windows

See how to set up a new project WorkSet, and learn to model walls, doors, and windows

BIM QuickStart A103: Creating Architectural Drawings and Schedules

Create a Drawing Composite Model and then create a floor plan and building section

Civil Geometry

The focus of this class will be alignment creation on open roads. Discussion of the interaction with legacy programs and limitations due to this interaction. Learning how to utilize design standards when creating an alignment, and how to review errors.

Creating and Manipulating the Corridor

In this workshop, you will explore the many tools and techniques available to edit and manipulate a corridor. You will learn how to use parametric constraints to override default template values for pavement depths, shoulder widths, shoulder slopes and ditch widths. We will show how to make the corridor follow edge of pavement geometry using point controls and corridor references and show how the secondary alignment tool aids in changing cross section processing as it applies to point controls and corridor reference elements. We will take a look at how to add multiple templates drops along the corridor as you encounter different design situations and how to edit template drops in lieu of creating a new template. You will also learn how to create end condition exceptions in areas that require a different type of end condition solution. Finally, you will learn how corridors interact with other corridors by learning how to use target aliasing to seek corridors and how to use the clipping reference tool to clip out a portion of your corridor. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil SELECTseries 4 software.

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Converting between GEOPAK and Open Roads.

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

Horizontal Alignments.

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.

Introduction to Templates

In this course, we will show how to build a 2-lane Roadway with standard depth ditches. Also, the students will learn how to modify the output without editing a template.

Intermediate Templates

Learn how to utilize point controls to display information in sections. Using End conditions to stay within ROW constraints.

Intermediate/Advanced Processing Survey Data

Best Practices for importing Survey data.

Introduction to workspaces.

This 1-hour class will begin with the basics of MicroStation configuration of MicroStation Select Series 4.

Linear Templates

Students will be taught how to build a 3D feature that will be displayed in the sections outside of Corridor Modeling. This tool is a great alternative to Corridor Modeler for the unique areas of a project.

Printing the Plan Set Using Print Organizer.

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.

ProjectWise Explorer CONNECT Edition Basics-The ProjectWise Explorer Client

This workshop teaches the basics about working with the ProjectWise Explorer client. Including logging in, working in and personalizing the interface, folder and project overview, creating documents

ProjectWise Explorer CONNECT Edition Basics-Searching in ProjectWise

This course presents features that help you to search for documents in the ProjectWise Explorer environment.

ProjectWise Explorer CONNECT Edition Basics-Workflows, States, and Messaging

Learn about applying workflows to folders and projects, and how to change a document's state.

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QuickStart for OpenRoads Designer Corridor Modeling

In this course, you will be creating a Corridor and 3D model for a 2 lane rural road. You will learn how to create a Corridor, assign template drops, create and assign superelevation, create dynamic cross sections and review the Corridor and 3D model. You will also learn how to use parametric constraints and point controls to vary pavement depths and shoulder widths. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil SELECTseries 4 software.

QuickStart for OpenRoads Designer Drawing Production

Learn to create and annotate cross section sheets and plan & profile sheets. You will also learn to add individual annotations to label specific location coordinates, station-offset values, elevations, and more. This course will be taught using the OpenRoads Designer, CONNECT Edition software.

Rule Based Geometry

Setting up the Geometry file to automatically update when the alignment is altered will be the focus of this class. A suggestion on best practices will also be presented.

Site Modeling in OpenRoads Designer

This workshop will focus on how to use OpenRoads Designer for site modeling tasks. Join us as we explore how to model common site design elements such as building pads, parking lots, ponds, and cul-de-sacs. You will learn how to tie all those objects together to create a terrain model. Interested but not ready for a hands-on workshop? This session is also offered on Monday as a lecture only session. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil SELECTseries 4 software.

Superelevation.

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

Terrain Models.

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

Using Civil Cells

During this hands-on course you will learn how to place 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. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil SELECTseries 4 software.

Using a ProjectWise attribute Exchange template

Creating a PW attribute exchange template. Adding a Description to multiple files in a batch process using a PW exchange template. Managing all PW attributes, sheet title block tags and the Index of Sheets from a single Drawing List spread sheet.

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Vertical Alignments.

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

Site Modeling in OpenRoads Designer

OpenRoads Designer is not just for corridors. Yes you can do site modeling with OpenRoads Designer! Join us as we explore how to model common site design elements such as building pads, parking lots, ponds, and cul-de-sacs. You will learn how to tie all those objects together to create a terrain model. Do you want to try it yourself? This session is also offered on Tuesday as a hands-on workshop. Many of these tips and tricks apply to both OpenRoads Designer, CONNECT Edition and V8i versions of InRoads, GEOPAK, MXROAD, and PowerCivil.

Understanding Georeferenced Coordinate Systems and Point Cloud Tools

Come explore Georeferenced Coordinate Systems and the LiDAR tools under the reality modeling tab in OpenRoads Designer. We will take a look into what a Georeferenced Coordinate System is and why setting the correct one is critical for your project's success. We will also explore the tools available for processing Point Cloud data. You will learn to build a terrain model from unclassified LiDAR data and remove the first return shots (foliage) resulting in a more accurate representation of the ground's surface. Do you want to try it yourself?

Evaluating and Laying Out a Storm Network

We will start by using Review and Evaluation tools to explore a utilities-rich file. You will master being able to describe the engineering of any utilities file. Then we will lay out inlets, pipes and catchments to model a storm network. This course will be taught using the OpenRoads Designer, CONNECT Edition software but the concepts and workflows are similar in GEOPAK, InRoads, MXROAD, and PowerCivil