Kentucky Engineering Center

ACEC Kentucky

Professional Development

Sponsored by the Kentucky Society of Professional Engineers and the American Council of Engineering Companies of Kentucky

March 30, 31 & April 1 **8:00 a.m. until 4:30 p.m.**

Location: Kentucky Engineering Center, 160 Democrat Drive, Frankfort

InRoads III XM

This course is designed for civil engineers and designers with previous InRoads experience. It focuses on utilizing some of the more complex road and site design functions contained in these applications. Students will complete example design problems that illustrate the topics listed below.

Prerequisites: Ability to use MicroStation with at least 80 hours of hands-on experience; Familiarity with Microstation 3D; Famililiarty with civil engineering design terms and concepts; InRoads 1 or a basic knowledge of InRoads, including: how to create DTMs, how to create horizontal and vertical alignments, how to create templates, how to model roadways, and how to cut basic cross sections. InRoads II is not required before taking this course, however InRoads II is advised if the student is not proficient in the basic InRoads concepts or has not used the software in Production.

See 2nd page for outline

Instructor: Sam Nugent, CAD Productivity, Inc.
Fees for KSPE/ACEC-KY/SAME Members: $750.00
Fees for Non-Members: $1,200.00
Contact hrs: 24 Class Limit: 12

Registration Form * Deadline * March 23, 2010
(One Registration per Form. Make Copies when Necessary. Lunch is on Your Own.)

Name _____ Grade (PE, PLS, etc.) _____ KSPE/ACEC-KY/SAME Member: Yes No

Co./Org. Name _____ Street Address _____ PO Box _____

City _____ State _____ Zip _____ is Address: Work or Home

Phone _____ Fax _____ E-mail _____

Pricing & Payment *Not Refundable	Member Fee (KSPE/ACEC-KY/SAME)	Non-Member Fee	Total Due	Payment Type (Select One)	Payment Information Complete All Credit Card Information
InRoads III	$750.00	$1,200.00		Check Enclosed	**Make Payable to:** KSPE/ACE-KY Seminars.
				Visa	Card No. _____ 3 digit V #_____(on back of card)
				Mastercard	Name on Card:_____
					Card Expires: _____
					Signature on Card (Write Below):

Contact: Nancy@kyengcenter.org or print and mail or fax form to:
Nancy Parker, KSPE/ACEC-KY Seminars
160 Democrat Drive
Frankfort, KY 40601
Phone: 502-695-5680
800-455-5573
Fax: 502-695-0738

InRoads III V8.9 (XM)

Prerequisites

Know how to create and triangulate a DTM, know how to create cross sections, know how to create Horizontal and vertical alignments, know how to create a template, know how to run Roadway Modeler.

Introduction

Overview: what the course will cover and what you will be able to do upon completion of the course.

Typical Sections

Creating Templates

* Efficient use of components to create templates
* Components that are "linked" to other components with parent/child relationships
* Using constraints to your advantage
* Using display rules to control when a certain component is used

End Conditions

* What targets are available and when to use them
* How to use the end condition criteria to create complex sideslopes
* Setting the priorities of end conditions
* Benching in sideslopes
* Intersecting multiple surfaces
* Keeping sideslopes within right-of-way
* Using multiple end conditions in the same template

Corridor Modeling

Roadway Designer

* Using parametric constraints to vary a template "on-the-fly"
* Point controls and how they can reduce the number of templates needed
* Editing your design at individual stations
* Editing templates within the IRD file
* Using end condition exceptions: overrides, changing end conditions for a station range and setting a backbone only range
* Smoothing abrupt changes in end conditions

Multiple Corridors in Roadway Designer

* Creating alignments for intersection returns
* Setting up multiple corridors in one IRD
* Using target aliasing to intercept another corridor
* Using clipping options
* Modeling multiple corridors to create one surface

Feature-based Modeling

* Using design surface tools to create a surface
    * Generate Longitudinal
    * Generate Sloped Surface
    * Decision tables for sideslopes
    * Spot grading
* Surface editing tools
    * Editing breaklines (fillet, trim, partial delete, etc)
    * Deleting points, triangles, linear features and portions of a surface
* Creating master proposed surfaces with merge and wire-frame model concepts
* “Cleaning up” an intersection surface
* Modeling a pond without templates

Review / questions and answers