THE UNIVERSITY of WISCONSIN MADISON

Department of Engineering Professional Development
432 North Lake Street Madison, Wisconsin 53706

Designing Optimized Traffic Signals and Systems Using Visual TEAPAC, PASSER, TRANSYT and CORSIM

January 22–24, 2008
Las Vegas, Nevada

In this course you will

- ***Gain an understanding of software package advantages and disadvantages***
- ***Learn how to apply signal software for optimal signal and system solutions***
- ***Improve your efficiency when analyzing and designing the timing for signals and signal systems***
- ***Gain hands-on computer training...without needing to know specific software***
- ***Learn from Dennis Strong, a nationally recognized expert in signalization design***

Featuring the new Visual TEAPAC (Ver 7) with major enhancements, primarily a new graphical input interface and enhanced graphical output reports, and the latest versions of SIGNAL2000 (Ver 2), NOSTOP, TEAPAC Preprocessors, PASSER II-02, TRANSYT-7F, TS/PP-DRAFT and CORSIM

Enrollment is limited. Reserve your place today!

THE UNIVERSITY of WISCONSIN MADISON

COLLEGE OF ENGINEERING ■ DEPARTMENT OF ENGINEERING PROFESSIONAL DEVELOPMENT

Designing Optimized Traffic Signals and Systems Using Visual TEAPAC, PASSER, TRANSYT and CORSIM

January 22–24, 2008
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Past participants say it best...

"Time and money absolutely well spent!"

"I can't believe what a better understanding of signal timing and coordination I have because of the course."

"What I learned will cut my analysis time in half. I definitely recommend it to anyone doing or reviewing traffic signal analyses."

"Dennis Strong is an excellent instructor with a great grasp of the material, making learning enjoyable."

ACCEPTED 21 Professional Development Hours NATIONWIDE

ACCEPTED 2.1 Continuing Education Units NATIONWIDE

Designing Optimized Traffic Signals and Systems Using Visual TEAPAC, PASSER, TRANSYT and CORSIM

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No More Hit-and-Miss or Black Box Analysis

The analysis and design of traffic signals and signal systems can be a complex task. Many software packages can be useful. In this course you will learn about the best features of some of the most widely used signal software available, and the optimization approach they follow. You'll also learn how to avoid any pitfalls these programs may contain.

No individual software package does the job completely. Learn how to efficiently combine several software packages for optimal signal and signal system timing designs.

Learn from a Nationally Recognized Expert

This practical course has been developed and is presented by Dennis Strong PE, PTOE, of Strong Concepts, a recognized authority on traffic signal timing methods and the author of the TEAPAC software. Mr. Strong has more than 30 years of design experience in signal system and software projects throughout the United States and abroad. He has also managed numerous general traffic engineering and traffic signal design projects. A lecturer at several universities, he is past chair of the Signalized Intersection Subcommittee of the TRB Highway Capacity and Quality of Service Committee, which writes the *Highway Capacity Manual*.

Increase your Productivity and Confidence

If you evaluate or develop signal timing and coordination plans, this course will make you more knowledgeable and productive. You will gain skills and knowledge in this course that will not only increase your effectiveness and efficiency but also allow you to more easily defend your solutions. You will be more confident when planning, designing, and operating signals at isolated intersections or along arterial systems and networks.

Who Should Attend

This course will benefit:

- Traffic engineers, planners, and consultants
- Traffic engineering technicians and analysts
- Traffic signal designers and operators

Use the Latest Software in Case Study Applications

Learn how to optimize individual signals with SIGNAL2000, a software package designed to incorporate the latest changes in the 2000 *Highway Capacity Manual*. Then, use the latest Visual TEAPAC (Ver 7) software to efficiently and effectively apply some of the most widely used software in an approach that produces an optimal solution.

This is your opportunity to learn through lecture, discussion and hands-on problem solving using the following traffic signal software: SIGNAL2000, NOSTOP, PREPASSR, PASSER, PRETRANSYT, TRANSYT, PRENETSIM and CORSIM.

The course will focus on solutions to specific signal and signal system operation problems, from isolated intersections and arterial systems to diamond interchanges and roadway networks. You will use Visual TEAPAC in conjunction with PASSER, TRANSYT and CORSIM, giving you valuable experience in applying the software to develop signal solutions for real-world situations. You will learn their assumptions and the questions to ask. Upon completion of the course you will understand

- Assumptions used by the most common signal timing software
- Strengths and weaknesses of these signal timing programs
- When and how to use the software most effectively

You should have some basic knowledge of traffic engineering, but experience with computers or specific software is not required.

For Related Course Descriptions

http://epd.engr.wisc.edu/catalogs/transportation.lasso

Past Participants Say It Best

"This course was very well thought out, and the information I gained will help me refine the current process I use to evaluate signal and signal system timing."
David Graves, Assistant City Engineer, Provo City Corporation, Utah

"Most of the consultants that I review use this software and I wanted to have a deeper understanding of it and its outputs. This course definitely provided me with that understanding."
Tony S. Abbo, Traffic Engineer, New Mexico DOT, Albuquerque, New Mexico

"Dennis Strong is animated, interested, and passionate about these topics, making for an exceptional educational experience."
Richard E. Goding PE, City Engineer, City of Fond du Lac, Wisconsin

"Being new to traffic engineering after nine years in highway design, this course provided me with the 'ins and outs' of signal timing software and optimization methodologies. This has increased my confidence and ability to design signal timing plans for complex situations."
Christine Taras PE, Project Engineer, McTish, Kunkel & Associates, Allentown, Pennsylvania

"This was an excellent course covering a tough topic. It explains very well the tools available to give concrete answers and how to use those answers to design the best signal plans. In reality, it was a small investment for a big return."
John Yorks, Traffic Signal Systems Engineer, City of Hampton, Virginia

"I really enjoyed this three-day seminar. Everything presented was clear and detailed. I learned a lot about all of the software and processes involved with using the capabilities of each program. I recommend this seminar to anyone involved in signal and signal system design and operation."
Ryan Hostetter, Designer, Erdman, Anthony and Associates, Inc., Mechanicsburg, Pennsylvania

Enroll online today! epd.engr.wisc.edu/webJ735

Course outline inside...

Designing Optimized Traffic Signals and Systems Using Visual TEAPAC, PASSER, TRANSYT and CORSIM

January 22–24, 2008 in Las Vegas, Nevada

Course Outline

Tuesday, January 22

Introduction

Timing Individual Intersections

- 2000 HCM capacity analysis
- SIGNAL2000 timing and phasing optimization
- SIGNAL2000 hands-on exercise
- Recommended procedures

Simulation and Animation

- CORSIM simulation and animation
- PRENETSIM simplified inputs and SIGNAL2000 integration
- PRENETSIM/CORSIM hands-on exercise
- Recommended procedures

Wednesday, January 23

Simplified Arterial Bandwidth Optimization

- Bandwidth optimization techniques
- NOSTOP cycle and offset optimization
- NOSTOP hands-on exercise
- Recommended procedures

Complete Arterial Bandwidth Optimization

- PASSER-II bandwidth optimization
- PREPASSR simplified inputs and SIGNAL2000 integration
- PREPASSR/PASSER hands-on exercise
- Recommended procedures

Thursday, January 24

Comprehensive Arterial Optimization, Simulation and Animation

- Limitations of bandwidth methods
- TRANSYT-7F simulation and optimization
- PRETRANSYT simplified inputs and SIGNAL2000/PREPASSR integration
- PRETRANSYT/TRANSYT hands-on exercise
- Recommended procedures

Special Optimization Situations

- Diamond interchange optimization with SIGNAL2000, PRETRANSYT, and TRANSYT
- Non-arterial and grid systems
- Actuated signals
- Double-cycled signals
- Recommended procedures

Summary and Course Evaluation

Course Schedule

The course will meet from 8:30 a.m. to 5:00 p.m. each day with registration from 8:00 to 8:30 a.m. on the first day of the course. The schedule will include continental breakfast, morning and afternoon breaks and lunch each day.

Your Instructor

Dennis Strong PE, PTOE
President, Strong Concepts
Northbrook, Illinois

As a recognized expert in the analysis, evaluation, and operational design of traffic signals and systems and in the use of computer software pertaining to this field, Mr. Strong heads a firm that specializes in the development of professional-quality, integrated traffic-engineering software and related training. One of his most significant accomplishments is authorship of Visual TEAPAC, a package of traffic engineering programs for computers. An integrated system of software that uses the interactive environment of the computer to its fullest, Visual TEAPAC has been licensed for use at more than 1,000 agencies and firms worldwide.

Mr. Strong has more than 30 years of professional experience in signal system and software projects throughout the United States and abroad. He has also managed numerous general traffic engineering and traffic signal design projects. Mr. Strong is a respected lecturer whose unique teaching style has been applauded worldwide. He lectures at the Northwestern University Traffic Institute, the University of Central Florida, and the University of Wisconsin–Madison and has many articles and presentations to his credit.

Enrollment Limited

Enrollment is limited for this course to maximize your interaction with the instructor and to facilitate individualized instruction. Enroll now to ensure your place. Call toll free 800-462-0876 and receive immediate enrollment confirmation, or you can enroll online at http://epd.engr.wisc.edu/webJ735.

Earn Continuing Education Credit

By participating in this course, you will earn 21 Professional Development Hours (PDH) or 2.1 Continuing Education Units (CEU).

On-site Courses Save Time & Money

Engineering Professional Development can offer many of our courses:

- At a location of your choice in North America
- At your convenience
- At reduced per-person cost
- Tailored to your needs

To inquire about courses that we can bring to your site, including optimal group size and costs, call 800-462-0876 and ask for Corporate Education Director Carl Vieth (608-263-7424 direct or vieth@wisc.edu). Or see http://epd.engr.wisc.edu/onsite

Other Transportation-Related Courses

For details on these and other upcoming courses, call 800-462-0876 or check our Web site at http://epd.engr.wisc.edu/catalogs/transportation.lasso

Soil Engineering for Roads and Pavements
November 27–28, 2007, Las Vegas, NV
Course #J480

Pavement Design
November 29–30, 2007, Las Vegas, NV
Course #J483

Highway Bridge Design
December 5–7, 2007, Madison, WI
Course #J595

Designing and Implementing Roundabouts
January 23–24, 2008, Las Vegas, NV
Course #J736

Effective Roadway Lighting
April 28–30, 2008, Madison, WI
Course #J140

Four Easy Ways to Enroll

Phone:
800-462-0876 or
608-262-1299 (TDD 265-2370)

Internet:
http://epd.engr.wisc.edu/webJ735

Mail to:
Engineering Registration, The Pyle Center
702 Langdon Street, Dept. 106
Madison, Wisconsin 53706

Fax:
800-442-4214 or 608-265-3448

Need to Know More?

Call toll free **800-462-0876** and ask for

Program Director:
Steve Pudloski PE
pudloski@epd.engr.wisc.edu

Program Associate:
Susanna Fuerstenberg
fuerstenberg@epd.engr.wisc.edu

Or e-mail **custserv@epd.engr.wisc.edu**

General Information

Fee Covers Notebook, course materials, break refreshments, lunches, and certificate.

Cancellation If you cannot attend, please notify us by January 15, and we will refund your fee. Cancellations received after that date and no-shows are subject to a $150 administrative fee. You may enroll a substitute at any time before the course starts.

Location Riviera Hotel and Casino, 2901 Las Vegas Boulevard South, Las Vegas, Nevada. Phone 702-734-5110 (press 0 for operator and make your request).

Accommodations We have reserved a block of sleeping rooms ($109 single/double plus energy surcharge not to exceed $3.85 per night) for course participants at the Riviera Hotel and Casino, 2901 Las Vegas Boulevard South in Las Vegas. A deposit equal to the room rate for one night is charged at time of booking. This deposit is refundable if the reservation is canceled 48 hours prior to scheduled arrival. Room block rates are not available for Friday or Saturday night stays. To reserve a room, call 800-634-6753 or 702-794-9412 and indicate that you will be attending this course under group code "University of Wisconsin–Madison." Room requests made later than January 3 will be subject to availability.

Course Changes We reserve the right to alter the course schedule and substitute speakers when necessary.

Course Information

❑ Please enroll me in **Designing Optimized Traffic Signals and Systems Using Visual TEAPAC, PASSER, TRANSYT and CORSIM**

Course #J735 January 22–24, 2008 in Las Vegas, NV Fee: $995

❑ I cannot attend at this time. Please send me brochures on future courses.

Enrollment is limited. Reserve your place today!

Personal Information (Please print clearly.)

Name _____

Title _____

Company _____

Address _____

City/State/Zip _____

Phone (_____) _____ Fax (_____) _____

E-mail _____

Additional Enrollees

Name _____

Title _____

E-mail _____

Name _____

Title _____

E-mail _____

Billing Information

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