

LinSig3 Computer Workshop

Wednesday 3rd October 2012

Edinburgh - Venue details tba

Duration: 3 days

Price: £645 (exc. VAT)

Overview

This course will appeal to anyone whose work depends on the correct modelling of traffic signal junctions, signalled roundabouts or networks.

Who Should Attend

This is the key training course for anyone whose work involves the precise modelling of traffic signal junctions, individually or in networks. Accurate LinSig modelling is fundamental to traffic signal design, transport assessments for development, and detailed network studies where traffic signal junctions are a major determinant of transport outcomes.

Pre-requisites

Delegates are expected to have a basic understanding of how traffic signals work and know what is meant by terms such as phase, stage, intergreen, saturation flow and capacity. This and much more can be gained by attending the JCT ?Introduction to Traffic Signals? course, which is normally held in advance of each LinSig Workshop, and can be attended as part of a discounted training bundle.

Course Content

Since 1985, LinSig has been the industry standard modelling software for traffic signal design and assessment. In recent years it has become widely used for complex multiple junctions and small networks. With the release of Version 3 in 2009 these capabilities are extended to larger networks, with matrix estimation and delay based assignment. There are also key improvements for individual junctions including full pedestrian modelling.

This three day workshop is key training for anyone new to LinSig who needs to produce efficient and accurate modelling as part of traffic signal design, transport assessments or network studies. The workshop is equally aimed at people with experience in transport modelling, traffic signals, or earlier versions of LinSig, who wish to hone their existing skills, ensure correct applications, and be well placed to authorise or audit other people?s work.

Day 1

- Overview of main LinSig3 features including lane based modelling, short lane control and blocking, assignment of flows to lanes and routes, comprehensive modelling of controller(s), pedestrian links, flows, delays and crossing times.
- Building a LinSig3 model on a suggested step by step basis including explanations of LinSig3 features in the context of building an actual model. This includes the many different display options and printing out the network layout view.
- Running LinSig3 models and interpreting the results. This includes input of signal timings using timing dials or optimisation. The detailed lane based results are explained and an overview is given of the report builder



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and print out options.

Day 2

- Modelling give-way left turns and opposed right turns, including a full appreciation of the components of right turn capacity dependent on the selected stage sequence. Use of flow group formulae and component flow groups for transport assessments.
- Handling more complicated signal sequences with optimisation of interstage periods using phase delays, and interaction with phase minimum greens. Certain limitations of controllers as addressed by LinSig3 are illustrated and explained.
- Opposed right turn blocking of lanes shared with vehicles going straight on. This includes use of LinSig3 delay based assignment to predict lane choice by drivers going straight on who might risk being blocked in the outside lane.

Day 3

- Vehicle movements through successive stop lines with explanations of coordination, flow graphs, queue graphs, platoon dispersion and platoon compression. Double junction modelling with both single and parallel stage streams.
- Using LinSig3 give-way parameters to model priority junctions and also conventional roundabouts on a lane by lane basis. Brief introduction to signalled roundabouts and timing dial optimisation to maximise capacity.
- Larger networks of junctions with multiple controllers. Importing and merging LinSig V3/2 single junction models. Matrix estimation from junction counts, delay based assignment and checking of routes through networks.
- Linsig3.1 new features including : Flow definition system, layered lane flows, consistency checking, multiple cycle times, bus modelling, bonus greens, turning count view, multi lanes, multiple intergreen sets
- Putting into practice some of the new features including flow layers, bus modelling and multi cycle times

Accreditation

The number of CET days will be allocated by the supervising civil engineer of each attendee. The standard course duration is three days, with an appropriate 3 days accreditation.

Dates & Times

This course will run from Wednesday 3rd October 2012 and last for 3 days.

The following schedule should apply although all times are provisional and subject to change as required on the day:

Day 1: 09.15 - 17.00.

Day 2: 09.15 - 17.00.

Day 3: 09.15 - 17.00.



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Course Venue

Venue: Edinburgh - Venue details tba

Location: Edinburgh

Course Tutors

Depending upon scheduling constraints, our course tutors will sometimes split tuition between them or teach a given course in its entirety whilst the other is unavailable. Please contact us directly if you need more specific detail about who will be teaching a specific course.

Course tutor: Simon Swanston MSc, BEng, CEng FIHE

Course tutor: Dr Douglas Reid

Douglas joined JCT in 2006, becoming a director of the company in January 2008. This followed 30 years of experience in local government working on Urban Traffic Control, traffic signal design, development planning, major transport schemes and local transport plans. His work has included large numbers of signalled roundabouts and traffic signals as part of major road schemes and developments. He has also had much involvement in area-wide transport studies, including transport network modelling.

Douglas is a leading expert on junctions, and in 1994 gained his PhD at Nottingham University in junction design and tackling urban congestion. He has well recognised presentation skills, having given many papers at conferences and expert evidence at public inquiries. He has long standing experience as a training lecturer, having taught traffic signal design on JCT courses since 1987. Since joining JCT full time Douglas has been a key lecturer and is extensively involved in all aspects of JCT training.

Course tutor: John Nightingale MSc(Eng), CEng FIHE MCIHT

The information presented here is kept as accurate and up to date as possible, nevertheless, this document is static and cannot be updated if any changes to the course arrangements are made. We make every effort to inform our delegates if we have to make any cancellations and if any changes are made to the venue or schedule. We also advise all delegates to check the website or contact us directly to confirm course details a few days before the course starts.



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