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SIDRA SOLUTIONS

SIDRA INTERSECTION Recent Developments

Software Presentation, Auckland, 9 Sep 2015

Presenter

Rahmi Akçelik

Location

Mercure Hotel, 8 Customs Street East, Auckland, New Zealand

Date and Time

Wednesday, 9 September 2015, 1.30 - 4.30 pm

Registration

Free of charge. Please complete the Registration Form available on our website.

SUMMARY

Akcelik and Associates Pty Ltd (SIDRA SOLUTIONS) will run this half-day presentation session on important new developments in recent versions of the SIDRA INTERSECTION software. The presentation will be held in Auckland, New Zealand on 9 September 2015 (Start: 1.30 pm, End: 4.30 pm). This is on the day before the NZMUGS 2015 Conference to be held at the same venue. Attendance is free of charge. Registration is required.

Full presentation details are given in the EVENT INFORMATION section below.

EVENT INFORMATION

Presentation Objectives

- give brief information on SIDRA INTERSECTION software status and modelling principles
- present an overview of important new features introduced in SIDRA INTERSECTION Versions 6.1 and 7 by demonstrating SIDRA INTERSECTION Version 7
- discuss SIDRA INTERSECTION network model basics and some important aspects of the model in more detail
- discuss modelling signal coordination effects, network signal timings (including signal offsets, cycle time and phase times, and common control group timing for Sites running under one signal controller), and extra bunching for roundabouts and sign controlled intersections
- conduct a discussion session.

Target Audience

Traffic Engineers and Planners involved in the analysis of intersections and networks for design, operations and planning purposes.

The first section of the presentation (Parts 1, 2, 3) before the tea break is appropriate for managers and team leaders who want to understand what SIDRA INTERSECTION can do without needing to use it.

The second section of the presentation (Parts 4, 5, Discussion) after the tea break is suitable for existing users who want to be introduced to new features of recent versions of SIDRA INTERSECTION.

Presentation Program

1.30 - 3.00 pm Presentations (Parts 1, 2, 3)
3.00 - 3.20 pm Break (afternoon tea will be provided)
3.20 - 4.15 pm Presentations (Parts 4, 5)
4.15 - 4.45 pm Discussion

Presentation Content

The presentation will cover the following topics.

Part 1:

Introduction and presentation objectives;
SIDRA SOLUTIONS: company & website; online support system
SIDRA INTERSECTION Software Status and Modelling Principles

Part 2:

Overview of important new features introduced in SIDRA INTERSECTION Versions 6.1 and 7 including: Network Timing (Common Control Groups, Signal Coordination table, Cycle Time and Phase Times, Signal Offsets), Routes, Network and Route Displays, Network Output by Routes, Network model results in Site output (Lane Blockage and Capacity Reduction, Excess Back of Queue, Coordination Information and Lane Changes)

Part 3:

SIDRA INTERSECTION Network Model Basics:

- Network Model Introduction
- Iterative method for lane blockage and capacity constraint
- Importance of Back of Queue model and lane-based probability of blockage
- Use of Special Movement Classes for closely-spaced intersections
- Introduction to the new Signal Coordination model

Break

Part 4

Important aspects of the SIDRA INTERSECTION network model:

- Network Configuration, Network Layout display
- Network Connection definition
- Lane Movement Flow Proportions (new graphical input dialog)
- Travel Time model for networks and Route Summary output
- Network signal timings (offsets, cycle time and phase times, Common Control Group timing) and modelling signal coordination effects (lane-based second-by-second platoon model)
- Coordination Information and Midblock Lane Changes:
  Matching of upstream and downstream lane flow rates, effect of this on platoon arrival patterns, tools to minimise midblock lane flow changes on short internal approaches

Part 5

- Network Import and Clone functions
- Network Flows, Net Inflow and Outflow
- Extra Bunching to model effects of upstream signals for roundabouts and sign-controlled intersections

Part 6

Discussion