

Akcelik and Associates

Review of Activities During 2008

Introduction

This paper presents a summary of the research, development, training and other activities undertaken by Akcelik and Associates during 2008. These include:

- SIDRA INTERSECTION software development and user status,
- SIDRA TRIP software development,
- software training,
- awards received,
- conferences and other activities.

SIDRA INTERSECTION

The development of SIDRA INTERSECTION Version 4.0 started after the release of Version 3.2 in August 2007. The development work is being completed and this new major version is expected to be released early in the new year.



SIDRA
INTERSECTION

New features of SIDRA INTERSECTION 4.0 will include:

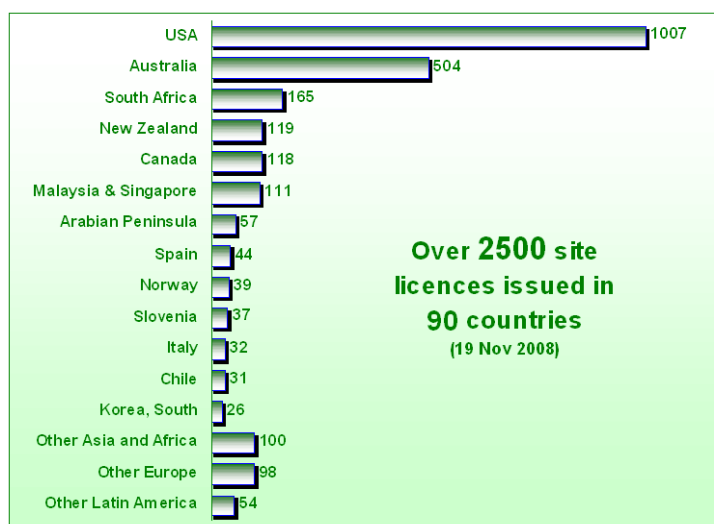
- new user interface, input dialogs, output reports and displays based on the latest Microsoft .NET framework version 3.5;
- use of compact SQL database to avoid separate installation of SQL;
- programming interface for users to access the program for batch use;
- roundabout metering signals analysis method and various other enhancements to roundabout analysis methods;
- intersection rotation function for ease of Site creation and modification;
- a large number of additional templates for roundabouts and sign control cases;
- significant improvements to input dialogs;
- new input parameters including saturation speed, extra bunching for upstream signal effect on sign-control capacity, and vehicle length;
- pedestrian input in dedicated pedestrian dialogs including enhanced pedestrian timing data;

- new Advanced Model Settings input dialog replacing various options with corresponding input parameters and offering new Site-level model options;
- enhancements to the design life analysis method including different growth rates for individual movements and options for setting different analysis objectives;
- new-style input report and enhanced output reports;
- new Lane Summary output report, and significant enhancements to the Detailed Output report;
- new-style Graphs with multiple data series;
- new output tables and parameters including annual values of various intersection statistics (including operating cost, fuel consumption and emissions), lane blockage probabilities, new SCATS parameter estimates (headway, occupancy time and space time at maximum flow), and new driver characteristics table including driver response time estimates,
- new software licensing system;
- further improvements to be announced at the time of release.

User Status

The use of the SIDRA INTERSECTION continued to increase at a high rate worldwide during 2008. It has now reached well over **2500 sites** in **90 countries**.

The number of licences in the **USA** is now **over 1000**, representing the largest user group in the world, followed by **Australia and New Zealand** with **over 600** sites.



SIDRA TRIP

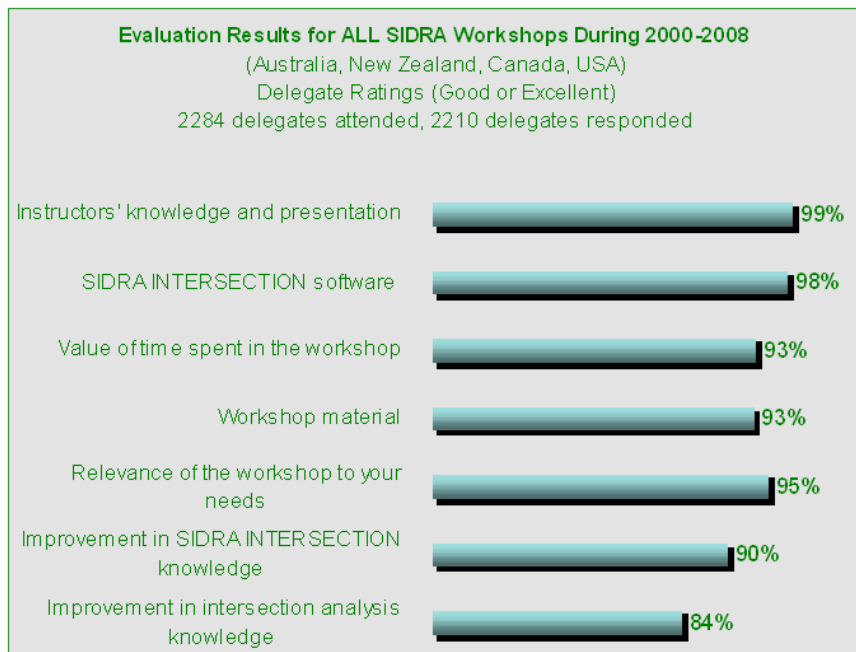
SIDRA TRIP version 1.0, single-trip micro-simulation model for assessing travel level of service, performance, cost, fuel consumption, emissions and noise, was released in November 2007. It is beginning to be used by various academic and professional organisations.



SIDRA TRIP 1.1 will be released at the time of the release of SIDRA INTERSECTION Version 4.0. The only change in this version will be the application of the new licensing system which will be used in both software products.

Development of SIDRA TRIP Version 2 started soon after the release of the first version of the software. New features of this version will be announced in due course.

Software Training



During 2008, SIDRA INTERSECTION Beginner, Intermediate and Advanced training workshops were held in **Sydney, Melbourne and Brisbane, Australia, Elk Grove, CA, New York, NY, Kansas City, MO, Raleigh, NC, Hampton, VA, USA, and Trinidad and Tobago**. About **370 delegates** attended these workshops.

During 2000-2008, Akcelik and Associates and its accredited representatives ran over **100** training workshops with about **2300 delegates** attending. The trainees rated various aspects of the workshops and the SIDRA INTERSECTION software very highly.

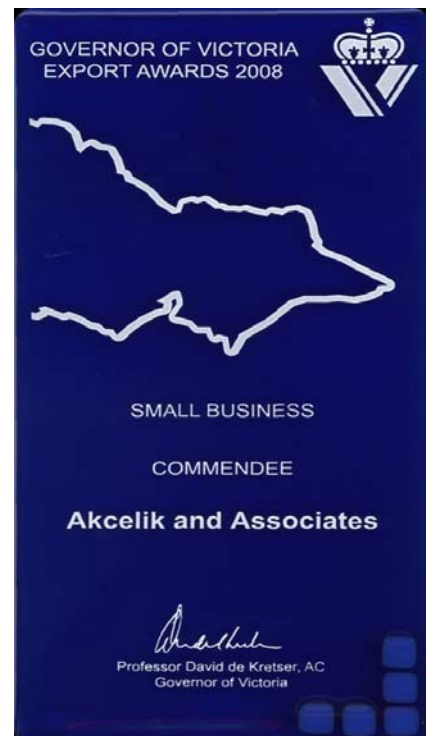
Awards Received

Governor of Victoria Export Awards Commendation - Small Business Award

Akcelik & Associates received commendation in the Small Business category in 2008 Governor of Victoria Export Awards at a ceremony held at Government House, Melbourne on Monday, 13 October 2008. The Governor of Victoria Export Awards, which have been running for 29 years, showcased the achievements of Victoria's export sector.

ITE Australia & New Zealand Section Contribution to the Transportation Profession Award

Dr Rahmi Akçelik received 2008 Contribution to the Transportation Profession Award of the Institution of Transportation Engineers Australia & New Zealand Section at the Institution's annual dinner on 25 November 2008.



Conferences and Other Activities

TRB National Roundabout Conference, Kansas City, May 2008

Akcelik and Associates participated in the TRB National Roundabout Conference, Kansas City, MO (18-21 May 2008). SIDRA SOLUTIONS software products were demonstrated at the conference exhibition, and Dr Rahmi Akçelik presented three papers at this conference (1-3). These and other papers are available for download from our web site:

www.sidrasolutions.com/traffic_resources_downloads.htm

Seminar on Roundabouts in London, UK

Rahmi Akçelik and Mark Besley presented a Seminar and Software Demonstration titled **Roundabout Design: Research and Practice** at the Centre for Transport Studies, University College London, on 30 May 2008.

New Ecommerce System

We are in the process of setting up a new ecommerce system to be launched early 2009 in conjunction with the release of SIDRA INTERSECTION 4 and SIDRA TRIP 1.1. At the same time, we are building a new website which will allow users to download our software products online. Demo versions of the software products will be available.

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For further information on the subjects discussed in this paper, contact the author at rahmi.akcelik@sidrasolutions.com

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