QuadstoneParamics

North America User Group Meeting 2010

We are pleased to announce the 2010 Paramics North American User Group Meeting (UGM) held at the Wisconsin Department of Transportation, Milwaukee Intermodal Station on October 4th.

Book a Seat
Register for the User Group Meeting

This annual event will feature cutting edge research presentations by Paramics users and innovative project case studies.

In addition, demonstrations of new Paramics features and applications will be provided by Paramics staff with the first presentation and demonstration of the new Actuated Signal Controller for NEMA/170/2070/NTCIP 1202 and common Ramp Metering algorithms.

There will also be workshops held by Paramics experts to familiarise users with the latest features, answer questions and ensure you are getting the most out of Paramics.

The Paramics UGM is an essential event for users of any experience level from all aspects of our user base. The UGM will allow users to meet other members of the Paramics community, share ideas, discover interesting applications of the software, meet the Paramics staff and learn about upcoming features.

Presentations and Presenters

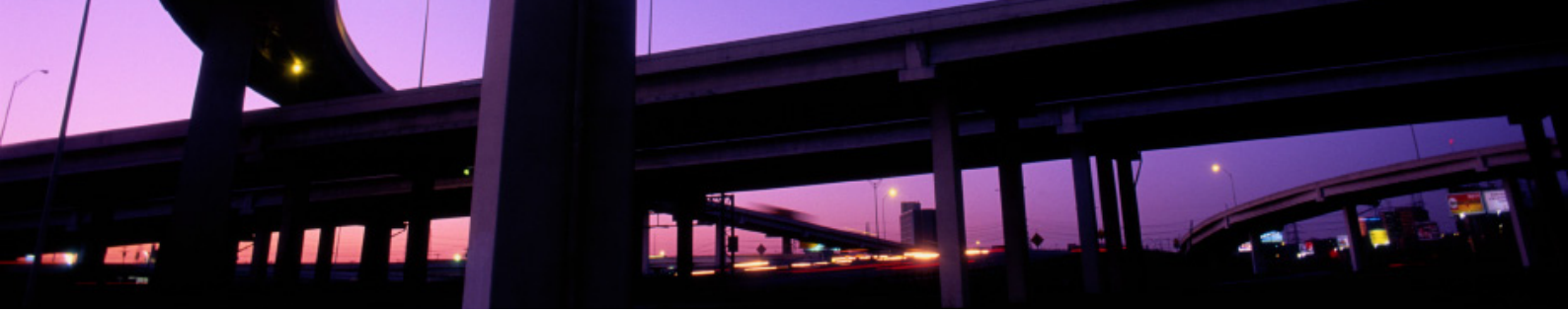
We've listed below the confirmed presentations for this User Group Meeting.

Update from Quadstone Paramics
Lenny Winsel, Quadstone Paramics

New product news including details of some key features to be found in upcoming versions of the Paramics and UAF software including a new Actuated Signal Controller, UAF pedestrian improvements and core model enhancements for improved level of detail in small scale studies. Also updates on all strategic partnering initiatives can be expected with exciting news on a variety of partner related topics.

Lessons Learnt from Micro-Mesoscopic Simulation Models
Carlos Bastida, Parsons Brinkerhoff
Princeton, NJ

This presentation will provide an introspective to microscopic simulation tools aimed at modeling mesoscopic behavior. As microscopic simulation software packages evolve, becoming more powerful and multitasking - enabling the analysis of complex real world problems, hybrid models are born and analysts commonly deviate from conventional studies forgetting and, often times, omitting the basic framework under which microscopic simulation models are based. As such, is the mix of microscopic and mesoscopic levels desirable? and, is a microscopic-based tool suitable for the analysis?



Lessons Learned from the use of Paramics for Corridor System Management Plan (CSMP) Studies

Lianyu Chu, CLR Analytics
Irvine, CA

Caltrans Corridor System Management Plan (CSMP) projects aim to identify system management strategies for a given State Highway System facility based on comprehensive performance assessments and evaluations. The strategies are phased and include both operational and more traditional long-range capital expansion strategies.

Based on a CSMP, Caltrans will improve state highway system starting from 2012 using the California Bonds. SR-57 corridor connects Los Angeles County and Orange County, which are No. 1 and No.6 most populous counties in the United States. It is one of the most congested freeway in California.

Paramics microscopic traffic simulation is employed to model the corridor and quantify the benefit of various strategies. The base models, including a 4-hour AM period and 6-hour PM period, were calibrated against Year 2007 traffic condition. It's used to test 15 scenarios under both 2007 demand and 2020 demand levels. Each scenario includes a set of improvement projects that are expected to be completed in the near future. The improvement projects include various demand management and value pricing, adaptive ramp metering, traffic information, traffic control, incident management, operational improvement, and system expansion strategies.

This presentation will discuss the project and lessons learned from this project.

ITS applications in Paramics

Matt Juckes, Aecom
Newark, NJ

Currently AECOM is using Paramics to model various ITS applications and test their abilities on future traffic conditions. This presentation will go over the findings from 2 of those applications. The first is the test of the addition of EB and WB HOT lanes on a major Interstate. Using the Dynamic Tolling and Variable Message Sign features from the latest versions of Paramics AECOM has been able to show the benefits from the addition of the HOT lanes and also how the dynamic tolling might function as congestion grows.

The second project is a test of ramp metering and ITS managed lanes on the eastbound direction of a major interstate. This project shows the various levels of improvement that could be captured by applying one of 3 different ITS scenarios to a 4 Interchange section of the interstate. The 3 scenarios are as follows: 1. Fixed Timing ramp metering, 2. Actuated algorithm ramp metering and 3. Fully managed lanes with ramp metering and variable mainline speed limits.

Using Microsimulation to Compare Complex Roundabout and Traffic Signal Corridors

Kyle Henderson & Joe Urban, Strand Associates
Madison, WI

This presentation will detail our use of Paramics modeling in the 27th Street Design Road Safety Audit. We used Paramics to compare the operations of a proposed roundabout and traffic signal corridor. The comparison included looking at traditional peak hours of traffic as well as some special case tests. This corridor is a diversion route for I-94 so we tested how both corridors would respond to an increase in traffic if I-94 was diverted onto 27th Street. One other special test we performed was to simulate a HAWK signal at two of the roundabouts on the corridor to look at the impact a varying number of pedestrians would have on the roundabout operations.

Calibration of a Micro-Simulation Model in a Large Urban Network

Timothy Oketch, AECOM
Ontario, Canada

This presentation describes the calibration and validation of a micro-simulation model in the analysis of a large urban network. The Paramics micro-simulation model is being applied to model traffic operations within the City of Niagara Falls, Ontario. The completed model will be used to assess traffic operations and various traffic management initiatives including deployment of Intelligent Transportation Systems within the tourist area in the City.

The analyzed network consists of freeways, arterial and collector roads with over 90 signalized intersections. Over 170 traffic zones were used to model points of traffic generation and destination including high traffic generators such as car parks in the tourist area. The calibration efforts focused on the PM peak hour and involved estimation of representative origin-destination matrices for the network, selection of appropriate assignment method and comparison of modeled and observed traffic volumes at multi-levels using a modified Chi-Squared statistic test. The presentation also discusses the challenges of using Paramics in the analysis of large hierarchal networks.

Using Paramics in Design/Build Procurement

Rob Beuthling, HNTB,
Madison, WI

The presentation will cover the development of a 40-mile interstate corridor and the issues with converting a calibrated corridor-only model to include local networks of several adjacent municipalities along I-15 and the methodology, tools and strategy to evaluate each of the three design-build team's proposals and summarize the results.

A review of Paramics Customer Services and Support

Merrick Whyte, Quadstone Paramics

Over the last year or so we have done a lot of work to help users access the information they need to get the very best out of our products. As a result we'd like to take this opportunity to go through the various resources available to ensure that you have all the help you need. In addition details of the Accredited Paramics Trainer and User programs will be available as well as an update on our other important customer services.

This year's UGM will also feature a presentation from:

John Shaw, WisDOT

Further information on these presentations will be available from the website shortly.

Pricing Information

Customers on support and maintenance are provided a seat per supported license free of charge. Additional required seats can be booked at $75 per head.

Customers not on support and maintenance can also book seats at $75 per head.

Licenses and support information can be found by logging into the customer area of our website.

If you have any questions, please contact us at paramics-info@paramics-online.com.

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