

Abstract Submission Form



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Paper Title:

Applying Dynamic Traffic Assignment to Freeway Corridor Study

Relevant Session/Topic:

Travel Models and Microsimulation

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Abstract: 250 words maximum. Use 12 point Arial font, single space.

Traditional travel demand models use static traffic assignment to estimate traffic volumes on a roadway network. Dynamic traffic assignment is an emerging modeling approach that employs simulation and power of modern computers to more accurately estimate travel demand and to model driver's behavior in reaction to various factors such as toll, ITS, incident, ramp metering, traffic detour, etc. DynusT (Dynamic Urban Systems for Transportation) is one software tool that applies this state-of-the-art technique. DynusT has been successfully applied to evaluate system interchange, regional highway, evacuation routes, impacts of a bridge collapse, and others, all of which at a regional scale. This paper presents the first application of DynusT to a corridor study.

The Interstate I-10 corridor studied is about 7 miles long and located in Tucson, Arizona. The study objective was to identify capacity requirements on the freeway and at the interchanges to serve 2040 traffic demands. DynusT was selected as the analysis tool to more accurately estimate the future travel demands (ADTs and intersection turning volumes) as well as impacts of various traffic detour strategies. It has the potential to replace the traditional HCM-based analysis tools.

The paper outlines the benefits of DynusT, the modeling process, lessons learned, and application guidelines for similar corridor studies.

Abstracts are due by 5:00pm on Monday, January 4, 2010.

e-mail your abstracts to:

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