

QuickZone

INTRODUCTION:

The Operations and Intelligent Transportation Systems Research Team of FHWA has initiated QuickZone, their new work zone delay estimation software, developed in cooperation with Mitretek Systems.

MOTIVATION:

In all but a few high-visibility freeway construction and refurbishment projects, the "soft cost" of traveler delay is typically not considered when key decisions about project staging and duration are made. The 1998 FHWA report *Meeting the Customer's Needs for Mobility and Safety During Construction and Maintenance Operations* identifies this issue and recommended the development of an analytical tool to estimate and quantify work zone delays. This scope of work laid out a plan for the development of an easy-to-master analytic tool (currently under the working title "QuickZone") for quick and flexible estimation of work zone delay in all four phases of the project development process (policy, planning, design and operations).

APPROACH:

The QuickZone concept is to provide an easy-to-use, easy-to-learn tool that utilizes software tools that are familiar to the target user base. The current approach is to develop QuickZone as Microsoft Excel Workbook application. The prospective QuickZone analyst need only have Excel97 or higher running on a Windows-based PC with minimal memory and processing speed requirements. The overall goal in terms of ease-of-use is less than one hour to input and check a QuickZone network, and less than three minutes to analyze the data and produce delay profiles over the project duration.

TOOL PURPOSE:

The primary functions of QuickZone are:

- Quantification of corridor delay resulting from capacity decreases in work zones.
- Identification of delay impacts of alternative project phasing plans.
- Supporting tradeoff analyses between construction costs and delay costs.
- Examination of impacts of construction staging, by:
 - location along mainline
 - time-of-day (peak vs. off-peak)
 - season (summer vs. winter)
- Assessment of travel demand measures and other delay mitigation strategies.
- Allowing the establishment of work completion incentives.

TARGET USER:

The target users of QuickZone are State and local traffic construction, operations, and planning staff, and construction contractors. The tool is suitable for application in both urban and inter-urban settings.

INSTRUCTORS:

James Larkin

Ken Wood

Federal Highway Administration Resource Center

NOTE: Food and beverages are **NOT ALLOWED** in the Donald Kim Multimedia Lab.

Registration Procedure

- 1) Please contact Gail Ikeda at 956-8367, 956-8851 (FAX) or gail@eng.hawaii.edu by **Wednesday, July 5, 2006**
- 2) Attendance is limited to 25 participants.

Cancellations

Please contact us if you must cancel your registration or if someone will be substituting for you.

Parking

Parking at the University of Hawaii visitor parking lot (upper campus) or parking structure (lower campus) is \$3/day on a first come first serve basis.

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July 13, 2006

University of Hawaii at Manoa
POST Building, Room 214
Donald Kim Multimedia Lab
1680 East-West Road
8:00 a.m. – 4:30 p.m.

Workshop sponsored by the
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Hawaii Local Technical Assistance Program

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