MTC Asset

MIDWEST TRANSPORTATION CONSORTIUM – WINTER 2002 – Vol. 2, Issue 2

From the MTC Director

Transportation assets are tremendously important from the perspective of the performance of our national, state, and regional economies. Few people comprehend the great impact they have on the overall economy. Literally trillions of dollars in transportation assets have been put in place throughout the United States. They are one of the key means by which the economy functions and is tied into the global economy.

American households spend over $6,000 every year on transportation, or about 18 cents of every dollar they spend. This is more than they spend on either food, utilities, health care, apparel, or education. The only thing Americans spend more on than transportation is housing, and the two are very close in magnitude.

What this means is that anything that improves the productivity of resources we spend on transportation will have enormous potential to provide economic benefits to Americans. Improving productivity is what asset management systems are intended to do. They help us make better-informed decisions about what to build, rehabilitate, maintain, and operate.

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Bringing databases together for asset management

The strategies, challenges, successes, and pitfalls often associated with the task of integrating or linking multiple asset management databases was the subject of a recent national forum and peer exchange.

Hosted by the American Association of State Highway and Transportation Officials (AASHTO) Asset Management Task Force and the Federal Highway Administration (FHWA) Office of Asset Management in Chicago in December 2001, the objective of the forum was to convene infrastructure and information management professionals throughout the country to discuss data integration and data sharing for asset management.

The forum provided an opportunity for state transportation agency representatives to share their data integration experiences with other participants. The forum attracted participants from 27 state departments of transportation (DOTs), 11 consultants, four local agencies, and two universities. Participants' interests and expertise ranged from infrastructure managers to

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MTC at TRB

The following presentations were made at the Transportation Research Board's general meeting in January 2002.

They are listed here because they were made by key MTC personnel, or becasue they were based on projects directly supported through MTC research grants.

University of Missouri-Columbia

"Managing Geotechnical Assets: A New Perspective in Dealing with Geotechnical Issues"
Session 304: J. Erik Loehr and Kristen Sanford Bernhardt

"PV Drains Enhanced Vapor Extraction"
A2L03 Committee Session: John J. Bowders, Jr.

"PV Drains Enhanced Vapor Extraction"
Session 202 Poster Session: Omaira Collazos (Student)

"Measuring Pedestrian Level and Quality of Service"
Session 403 Poster Session: Mark Virkler

"Knowledge Discovery in Pavement Condition Data"
Session 434: Vanessa Amado (Student) with Kristen Sanford Bernhardt

Iowa State University

"What We Know About Business and Development Impacts of Access Management"
Session 516: David J. Plazak

"Identifying Sites with Promise for Safety Improvements and Evaluation of Countermeasures"
Session 724: Reg Souleyrette

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financial managers to information system managers. The presence of consultants is an indication that data integration is something that they need to be involved in and that there are tools available to help agencies with their data integration activities.

The forum program included

- an overview of asset management and data integration concepts and strategies,
- state DOT (Mississippi, Tennessee, Maine, Michigan, Virginia, Ohio, and Florida) presentations about their efforts and experiences with data integration, and
- discussions, suggestions, and feedback.

Technical and organizational issues

Some of the challenges discussed included technical and organizational issues. Technical issues dealt with

- data quality (conversion of legacy data),
- choosing the right technology or tool (database design and software),
- location referencing, and
- data storage requirements.

Organizational challenges included resources, cooperation, communication, data management, and support from top management.

All of the states presenting at the forum agreed that data integration is a significant effort to undertake, and it takes time, resources, and commitment. Another important factor to consider is providing adequate training for the staff utilizing the newly developed and implemented system.

Video logging discussion

Even though the forum focused on data integration issues, there was a lengthy discussion on the use of video logging for asset management. Video logging was seen as a vehicle to drive some of the data integration effort through involving the end user. Several state DOTs agreed that video logging is a valuable tool for the sharing and packaging of integrated data and information.

Participants were able to obtain practical ideas for resolving issues related to data linking and integration. Moreover, the information obtained from the forum will help shape the short- and long-term data integration research agenda and technical assistance plans for both AASHTO and the FHWA.

For questions about data integration, please contact Omar Smadi at 515 294-7110 or by e-mail at smadi@iastate.edu.

by Omar Smadi, pavement management specialist at CTRE