User Spotlight/Case Study

Mississippi D.O.T. The Mississippi Department of Transportation put out an RFP (Request For Proposal), CitiTech Systems responded… and was chosen! Although our other users know our software as "CMS", MDOT calls it "AMMO", which stands for **A**ccountability in **M**DOT **M**aintenance **O**perations.

MDOT took the time to review their business processes, determine which modules were needed, and to set up the system to meet their unique requirements. They analyzed work flow and historical data. Sessions were lead by Jacobs Engineering and included MDOT senior staff and organization representatives, Dye Management Group, and CitiTech representatives. Processes were reviewed in terms of current ("As Is") and future ("To Be") maintenance processes. They looked at current Bridge and Pavement Management plans. They identified modules (existing or not) they would need in order to meet their goals. They commissioned special screens, used only by MDOT, such as a Data Collection Form for inspections. They reviewed work assignment processes. They discussed reporting requirements.

MDOT wanted to spend time and money on the right things at the right time for the right reasons - using required resources more efficiently. They felt that by using the right software, operations would be smoother and would allow MDOT to adopt "best maintenance practices" for managing the asset inventory.

Business improvement opportunities were identified by the Dye Management Group. Throughout the work flow analysis, opportunities for improvement were reviewed and discussed, incorporating as many of these expectations as possible with each "To Be" maintenance process. BPI opportunities were found for Planning, Budgeting, Scheduling, Program Execution, and Evaluation processes.

MDOT found that CMS would enable a more proactive best practice approach to the management of maintenance operations. They felt that the implementation of maintenance quality assurance, level of service analysis, an annual planning cycle and associated scheduling would improve the standardization of work and the ability to influence the budget distribution process.

MDOT decided they would purchase the Basic System with many Multi-User Licenses, Work Planning, Work Order Management, Work Scheduling, Pavement Management, Roadway Features, Inspections, Contract Management, Remote Processing, and Bi-directional GIS. They purchased CMS Version 8 on January 15th, 2008. Once fully implemented, it will replace their existing system, called "MAS", and also allow data to flow to other systems currently in use, such as FMS.

The first of our users to begin using CMS in Version 8, MDOT is also the only user using Oracle database platform instead of SQL Server.

The Work Planning module will provide a department-wide analysis and consolidation of information to identify needs and budget requirements based upon level of service targets.

Work Scheduling will result in improvements in productivity, resource/equipment utilization and sharing. This will provide improved resource allocation, better management of material usage, and better allocation and sharing of resources.

Inspections will give them standardization of the maintenance management cycle - providing consistency at a department–wide level and enhancing reporting and analysis of the maintenance functions.

Using CMS will allow separate islands of information to be consolidated into a single system for reporting. This reduces the complexity associated with trying to understand many different systems. It allows easier consolidation of information resulting in the ability to view the organization from different perspectives with the same accurate, timely data. In fact, CMS Reports will allow MDOT to conduct a more detailed analysis of work activities with less effort at a department-wide level, resulting in the ability to compare work activities at a crew, county, district and state level through standardized reporting.

Mississippi D.O.T. reviewed the software in detail for quality assurance purposes; acceptance testing has been completed, and "Go-Live" testing is being conducted in one district of the state.

Since CMS Version 8 ("AMMO") will be used statewide, it's being rolled out in stages. To accomplish this, they began by developing pilot training and testing processes. They tasked a single district to be "pre-trained" and begin using the software - including groups of Managers, Supervisors, and Crew Leaders. The pilot training was done to ensure accuracy of information and consistency with their business processes, and to identify any changes needed for the formal training. District One began using the software immediately after being trained. This will allow department heads to evaluate effectiveness of the training, and ensure the data being entered meets their requirements, before rolling it out statewide.

Different groups were trained on different aspects of the software. Managers and Supervisors were presented "big picture" overviews of CMS. Training for Managers included work planning and LOS (Level Of Service). Since MDOT will be capturing data in the field using laptops and handheld devices, training for Supervisors included creating work orders, scheduling personnel, work reporting, and

downloading data onto handheld devices (and uploading records). Training for Crew Leaders focused on accessing their work orders and doing work (against work orders and ad hoc) on the handhelds.

Jennifer Kiihnl, from the I.T. Dept in District 2, took the time to create “Cheat Sheets” for the various processes being presented during the training. "The quick reference guides should be a very helpful tool for our users, especially when familiarizing themselves with the system", she said. "Various quick reference guides will be developed as needs arise. Currently, quick reference guides exist for such tasks as creating a crew, creating a work order and completing a work report. I've also created them for handheld operations. These are step-by-step guides using screen shots and arrows to direct the user as they familiarize themselves with the software. These quick reference guides also point out fields that are especially important for MDOT data collection."

MDOT chose a "Train The Trainers" approach; select computer-proficient personnel are being trained, who will in turn train each district throughout the state, ensuring consistency of methodology throughout the organization.

MDOT also regularly takes advantage of Webinars offered by CitiTech Systems presenting CMS's capabilities - allowing them to see a quick overview of a feature or module, and evaluate functionality they may want to implement in the future, such as Templates.

Ken Hauser, from the Maintenance Division in Jackson, Mississippi, had this to say: "We have been waiting for a comprehensive Maintenance Management System for a long time. Now we have one and everyone is enthusiastic. We feel we have a good product with CitiTech."