

Texas: Driving On-Time Delivery

Using Primavera to help meet deadlines.

The Texas Department of Transportation (TxDOT) was ready for SAFETEA-LU.

TxDOT produces a funding document, updated annually, to plan construction projects on a 10-year cycle. In its most recent update, the DOT used the government's proposal of

engineer for the Fort Worth District of TxDOT, about SAFETEA-LU: "It reinforces the innovative funding mechanisms the state legislature has already provided us, which may result in our working on larger, more complex projects."

To manage the development of

"All have activities and responsibilities that they can schedule and access via Primavera software."

Although each section manager can modify only his or her own plan, Primavera lets managers view all other schedules. "This allows us to come together in project meetings and focus the discussion on how key items are progressing," says Smith. "Each section can see how a scheduled activity occurring now can affect its step in the process. This lets us set realistic deadlines."

The Fort Worth District used the Primavera Software Development Kit (SDK) to create a wizard to help managers schedule projects. "Without the wizard, there would be a steep learning curve," admits Smith. "A project manager may put together a schedule for one project and then not have to create another schedule for two more years. The wizard reduced time to develop a schedule from two days to 45 minutes, increasing our efficiency."



Photo courtesy of TxDOT

Dallas' High Five construction project is 10 months ahead of schedule.

SAFETEA-LU as a planning assumption. As a result, "there was very little impact to our funding document when SAFETEA-LU was passed at a slightly higher level," says Brian Barth, director of transportation in Planning and Development with the TxDOT Dallas District. "The Texas legislature in the past two sessions also gave TxDOT new funding and project delivery tools to help get additional transportation infrastructure constructed."

Says Scot Smith, district design

many of its current design projects, the Fort Worth District has been using Primavera software for 10 years. "We track projects from concept to the completion of a set of plans," says Smith, "for everything from traffic signal installation to new freeway construction."

Fort Worth includes several design steps in its planning system. "We need input from sections of our organization such as environmental, right-of-way, utilities, bridge design, traffic-signal design and roadway design," says Smith.

ALSO IN DALLAS

The Dallas District is also developing what it calls a "Project Development Scheduling System," which comprises Primavera software and a front-end wizard. As in Fort Worth, project designers will run the wizard – also developed with the Primavera SDK – which takes them through a series of questions about their projects. The wizard creates a schedule in the Primavera database. The designer can then edit the schedule, if needed, directly from Primavera, and enter status using time sheets.

In the past, the Dallas District used

critical path method (CPM) for scheduling just the construction phase of the projects. With Primavera, the organization can also use CPM scheduling in the project development phase to help the DOT meet the letting date, the date at which TxDOT accepts bids from contractors.

Previously, each designer managed his or her own project development schedules, explains Barth. Thus, the organizations handled problems reactively instead of having the ability to proactively address issues before they became problems and affected the overall schedule. The Dallas District anticipates that Primavera software will help managers “identify bottlenecks in the development process and fix them, manage manpower resources better in each design office, enable design offices to handle additional work, and identify under- or over-performing offices,” says Barth. In addition, having the database housed centrally enables management to view the entire district’s schedules in one screen.

ANTICIPATING SAFETEA-LU

Barth expects Primavera software to help his organization manage a greater volume of work anticipated by SAFETEA-LU and “develop projects systematically and coordinate resources agencywide,” he says. Although the Dallas District is still implementing the software, it hopes to expand its scheduling capabilities with additional licenses of Primavera. “If successful,” Barth points out, “other districts may be interested in adopting it.” »