



Florida Department of Transportation Research

Integration of XML Schemas for the Exchange of FDOT Construction Project Data

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The development of extensible markup language (XML) has made it possible to efficiently share data among diverse software applications and users. XML applications can be used with any computer platform that is XML compatible. XML's flexibility has made it valuable for data sharing among engineering, construction, and transportation professionals.

FDOT also employs TransXML, which was developed by the National Cooperative Highway Research Program for the transportation industry. University of Florida researchers reviewed TransXML and found that the program does not accommodate data from many FDOT construction areas. To use TransXML, new schemas would need to be developed specifically to support the management of FDOT construction business data.

The researchers conducted a detailed review of FDOT construction data reporting, from which they developed a comprehensive data dictionary and data map. Based on this data, they developed and tested 46 construction schemas. They also developed two construction data management applications to support specific FDOT construction project payment needs. One application will be used to allow contractors and consultants to submit payroll data. The second application will be used to assist in the preparation of contract progress payments.

XML has expanded capabilities not shared by traditional text publication reporting.

FDOT developed an XML schema, called DIGGS (Data Interchange for Geotechnical and Environmental Specialists), for sharing geotechnical data. Schemas are the means by which documents are made recognizable and exchangeable. The schema establishes how a document should be arranged to make it identifiable and exchangeable in an XML context.

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