TransXML Update

Background
At the AASHTO Annual Meeting in October 2009, the Standing Committee on Highways adopted a resolution endorsing TransXML (originally developed under NCHRP 20-64) and directing the newly formed Technical Committee on Electronic Engineering Data (TCEED) to expand and develop future schemas for consideration.

The AASHTO Joint Technical Committee on Electronic Engineering Data – adopted TransXML as the starting point for on-going data exchange standards development:

JTCEED Objective and Scope
The Joint Technical Committee on Electronic Engineering Data will provide a national civil transportation forum for the following purposes:

- Standards – Develop, publish and maintain national civil engineering data standards to provide uninhibited exchange of data between various software applications and data customers. This may include some general discussion of CADD related standards.
- Guidance – Development and publication of guidance on the: 1) types of uses for electronic engineering data, 2) understanding the expectations of the data accuracy, 3) professional licensing considerations, 4) legal contractual requirements, 5) securing the integrity of the data, 6) insuring long-term record retention, and 7) benefit/cost considerations.
- Best Practices – Collect, recommend, publish and update information on the best practices for the use of electronic data and its related state-of-the-art technologies across the transportation industry.
- Industry Focus Group – Provide a forum to collect input and exchange ideas with other industry stakeholders such as contractors, software vendors, and hardware or equipment manufacturers.

Members

Design	**Members**
Delaware	Michael Balbierer (Region 1)
Kentucky	Kevin Martin (Region 2)
Iowa	Kent Nicholson (Region 3)
California	Jesus Mora (Region 4)
Construction	
Pennsylvania	Rebecca Burns (Region 1)
North Carolina	Victor Barbour (Region 2)
Michigan	Jason Gutting (Region 3)
Oklahoma	George Raymond (Chair) (Region 4)
Bridges & Structures	
Louisiana	Arthur D'Andrea (Region 2)
Alabama	George Conner (Region 2)
Kansas	Loren Risch (Region 3)
Wisconsin	Scott Becker (Region 3)

Information Systems	
Vacant	Region 1
Kentucky	Bret Blair (Region 2)
Missouri	George Kopp (Vice-Chair) (Region 3)
Vacant	Region 4
Other	
AASHTO Liaison	Keith Platte
FHWA	John Seabrook

Need representative volunteers from ASIS for Regions 1 & 4.

Status of Activities related to TransXML

Progress to date on expanding TransXML has been hampered greatly from the lack of a consistent formal funding source. AASHTO has been trying to promote inclusion of a permanent funding source at the federal level perhaps through reauthorization. In the absence of a consistent funding source, the JTCEED has utilized NCHRP and requested and received small amounts of funding for on-going research efforts to address the needs of the committee with regard to moving TransXML forward.

NCHRP 20-07/Task 295 - $50,000 approved and completed

The primary objective of this research was to identify and prioritize additional XML schemas for adoption in the TransXML framework. These include both existing XML schemas that could be enhanced or immediately adopted for TransXML, as well as high priority areas where the future development of new XML schemas would be particularly beneficial to DOTs. The final report has been received and accepted and provided to AASHTO for distribution. It can also be downloaded from NCHRP here.

Additional Research Project / Funding Sought - $300,000 (AASHTO Standing Committee on Research only approved $100,000)

In general, the proposed research would develop operating procedures to allow the JTCEED a formal process for expanding and modifying the TransXML schemas and move changes to existing schemas toward adoption. These processes need to be developed to engage both AASHTO stakeholders and industry stakeholders in approval and adoption of additions and changes to TransXML schema definitions. Some examples of objectives of the research include:

- Define stakeholders in TransXML. Address the inclusion of industry stakeholders and schema users into the process of schema development and review.
- Define roles and responsibilities of the Joint Technical Committee on Electronic Engineering Data as related to the adoption and approval of schemas and schema changes.
- Develop a process for managing additional development of new XML schemas to be added into the TransXML framework.
- Develop a process for maintenance and enhancement of existing XML schemas that are part of the TransXML framework. This should include requests from stakeholders for changes to schemas, proposals for formal changes to a schema area, and methods to deal with reported errors or omissions in TransXML schema as developed today.

- Definition of an industry standard comment process to allow stakeholder the opportunity to make comments on a schema change prior to adoption.
- Formal adoption procedures that mesh with other existing AASHTO committee's approval processes.
- Develop documentation to support these processes including; an updatable comprehensive schema map of TransXML, a process definition in layman's terms for stakeholders to understand how to change or enhance schema, a documentation of the adoption process in an easy to understand flowchart, and any documentation necessary to implement a formal web based comment and ratification process for schema additions and changes.

Because SCOR only approved 1/3 of the originally requested funding, the JTCEED is reformulating a plan on how to best utilize the money. Plainly stated the objectives at this time are to:

1. Develop a repeatable process
2. Apply as many schemas as are currently out there tot eh process
3. Have the repeatable process available to apply to new XML schemas