PESC Technical Advisory Board

Current Activities

Technical Advisory Board

- The Technical Advisory Board is responsible for updating and maintaining all technical specifications and for providing guidance on technical and architectural issues related to electronic standards and higher education.
- The TAB maintains the “PESC Guidelines for XML Architecture and Data Modeling”.
- Meetings are held on most Thursdays at 3PM ET.
- Any PESC member is invited to participate.

TAB Team

- Co-chairs:
  - Gideon Sanstra (SunGard Higher Education)
  - Michael Morris (ACT, Inc.)
- Chairman Emeritus:
  - Steve Margenau
- PESC Board Liaison:
  - Russ Buyse (Pearson)
- Active Participants:
  - Tuan Ahn Do (SF State)
  - Jeff Funck (AES)
  - Tim Cameron (PESC)
  - Paul Fawver (TG)
  - Kumar Shunmuham (FSA Contractor)
  - Sebastian Baba (Ontario College Application Services)

TAB Current Initiatives

- Single File Schemas
- Schema Component Architecture
- PESC and SIF Alignment
- Common Data Standards Adoption

Single File Schemas

- Contains only those components (elements, groups, and types) that are needed for a specific message standard
- Provides faster and more convenient validation of messages (instance documents)
- Eliminates need for old versions of core and sector library to be distributed
- Provides a transition to component assembly using Registry and Repository

Single File Schema Creation

- The TAB has developed a transform program (using XSLT) that assembles a single file schema from the root element definition schema and any imported schemas (e.g., sector and core schemas).
- The standard development process would not change except for an additional step of creating the single file schema.
- Core and sector libraries would still be maintained but only the latest version needs to be made available during development.
- The transformed schema components would contain a version attributes expressing the origin namespace of the component (which includes version).

POSTSECONDARY
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Schema Size (Lines)

Schema	Standalone	Root Level	Sector	Core	Combined	Savings	Percent
ETSR (extension converted)	5407	20	1967	10114	12101	6694	44.68%
Recruitment and Enrollment	6461	43	1274	10898	12215	5754	52.89%
Admission Application	6289	29	877	10646	11552	5263	54.44%
IPED 4 Year graduation	198	34	586	10646	11266	11068	1.76%
High School Transcript (extension converted)	4715	30	1052	10898	11980	7265	39.36%

Component Architecture: XML R&R

- The XML Registry and Repository (R&R) contains PESC as well as FSA XML components and schemas.
- A new version of the XML R&R was released into production at the end of September.
- Components (global elements, groups and types) are associated with metadata that is fully searchable.
- The applications (message standards) that use specific component are also identified.

Component Architecture: R&R Features - Search

- Provides identification of components matching any property (name, description, business term, object class, property, enumerated list values, etc.)
- Encourages reuse by identifying components that match the elements needed for a message

Component Architecture: R&R Custom Schema Creation

- User selects components to include in new schema.
- R&R creates a file that includes selected component and ALL DEPENDENT components
- Selection of a single complex types in a sector library can bring in hundreds of components into the schema.
- Developer only needs to add the root element and new types not in the repository.
- Created components do not have a namespace prefix but do include version comments.

Component Architecture: Next Steps

- Develop a project plan for implementation of component approach
- Determine and document procedures needed to develop schemas from the R&R
- Determine if new features are required from the R&R to support this procedure
- Modify Architecture and Policy and Procedure Manual to cover changes
- Get PESC Board approval of detailed implementation

SIF and PESC Alignment

- Objective: Determine technical areas for collaboration
- Ron Kleinman, CTO of SIFA presented SIF System Architecture to TAB
- Discussed SIF Web Service approach and implications for PESC
- Reviewed SIF schema approach and discussed implications for PESC

Common Data Standard Adoption

- Objective: Adopt CDS without disrupting current PESC applications
- Provided input on the rules for the creation for code sets(enumerated lists)
- Explored methods for :
  - Element mapping
  - Choice structures
  - Substitution groups
  - Transform tools

The TAB Challenge

- "There is always a well-known solution to every human problem--neat, plausible, and wrong."

-- H.L. Mencken

- "There are no solutions...there are only trade-offs."

--Thomas Sowell