The Postsecondary Electronic Standards Council’s fourth annual conference will take place May 9 and 10 at the Arlington Hilton and Towers in Ballston Virginia.

As schools, the Department of Education and countless private enterprises delve into electronically automating everything from transcripts to student aid, PESC continues to work toward bringing the entire postsecondary education community together each year at its annual conference.

This year’s two-day meeting will enable attendees to gain insight into the progress made in the higher education community’s development and use of standards for data exchange.

Focusing on collaborations and partnerships within the higher education community, this year’s conference will be held in conjunction with the PESC Membership Meeting on the morning of May 9 and with the Department of Education’s Federal Student Aid CIO Technology Update on May 8 at the same location.

David Barkley, X12 Steering Committee Chair will give the keynote address during The Standards Through Collaboration Conference. Additional sessions include: National Student Clearinghouse initiatives; school’s perspective of electronic services; state collaborative initiatives using standards; electronic signatures; SAML and Web services; NCHELP collaborations; standards in distance education; Common Origination and Disbursement; and XML 101 and 102.

Online registration is available at www.StandardsCouncil.org and reservations at the Arlington Hilton and Towers can be made by calling 703-528-6000. For additional information or for questions call Ane al-Sayyed at 202-293-9161 extension 6400.
XML Forum Update

XML Forum members have been very busy this month preparing for the PESC conference to be held May 9 and 10 at the Arlington Hilton and Towers. There will be an XML Forum meeting held on Thursday morning and two XML sessions held Friday afternoon. The two concurrent sessions, titled XML 101 and 102, will deal with technical and non-technical issues surrounding the use of XML in the education industry. Please see www.StandardsCouncil.org for more information on the conference program.

The Technology Work Group is nearing completion of the Technical Specification Version 2. A preview copy will be distributed to participants of the PESC conference in May. The Technology Work Group asks that this document be viewed as a provisional text, and members hope to receive feedback from the PESC and XML Forum communities on its content.

The Technology Work Group will begin developing XML schemas within the month. Oracle, a PESC member, has offered technical expertise for the development of a transcript schema that will be reviewed by X12 Education Administration subcommittee in June. Recently, two action requests were approved by the Forum Steering Committee to assign resources to the development of XML schemas for CommonLine Version 5. The Technology Work Group will commence work on these schemas after the Core Components Data Dictionary is completed.

Speaking of the Core Components Data Dictionary, it is also in the process of being revised. A task force pulled together by Bruce Marton, XML Forum Architecture Team Chair, and Betsy Bainbridge, Executive Director of PESC, will meet at the PESC offices at One Dupont Circle in Washington next week to hammer out the foundational structure of the dictionary. This small group consists of members from the XML Forum, representing the Financial Aid and Admissions/Registrar communities. Bainbridge commented that this task force was assembled “in the hopes that a small face-to-face meeting will encourage forward motion on the framework of the dictionary.” The product of this meeting will be distributed to XML Forum members for their review and input.

“I expect a lot from this group, considering their combined expertise and experience in XML in the education industry. I anticipate that significant progress will be made on the dictionary within these two days,” said Marton.

The Steering Committee of the XML Forum met this week to discuss plans for the Fall XML Forum meeting usually held in October. It was decided that an XML Forum meeting will be held in conjunction with the EDI conference in Spokane, Washington, October 22 and 23. Mark your calendars!

If you are interested in the work of the XML Forum and would like to learn more, please contact Ane al-Sayyed at alsayyeda@standardscouncil.org. You can also visit the Forum website, www.pescxml.org, for more information on current projects, upcoming events and Forum membership.
Dear Friends and Colleagues:

During a Feb. 26 meeting of PESC’s XML Forum for Education at the University of Miami’s Law School, the Department of Education’s Office of Federal Student Aid and PESC signed a historic agreement to jointly support the use and development of community-based standards. I am excited about the formalization of FSA’s participation with PESC in the propagation of standards for the benefit of the broader higher education community.

In light of the FSA/PESC agreement, I would like to take time this month to elaborate on PESC’s role in electronic standards for higher education. PESC’s greatest addition to the community is its service as an independent, trusted, third-party advocate for coordination of standards that impact post-secondary institutions. This role, which no other organization plays, makes PESC the place to come together to collaborate on community standards and, in so doing, contribute to controlling costs while simultaneously improving service.

Due to the broad community buy-in and credibility of the organization, PESC can provide common governance over electronic standards efforts when such governance, whether formal or informal, is desired. Thanks to its diverse membership and charter, PESC can provide standards oversight at a level at which no one other organization is able, and it can provide direction on standards convergence that reflect the best interests of all affected parties.

The Board’s goal is to have formal agreements in place with every higher education constituency. Only with a dedicated focus on collaboration will all postsecondary institutions and the broader education industry truly realize the benefits of common standards. I look forward to seeing you in May at our annual conference and hope that you are able to participate in making this goal a reality.

Sincerely,

Keith Riccitelli
Chair, PESC
Ken Hutcheson  
Policy and Procedures Task Group Chair  
& David Barkley  
Steering Committee Chair  
ANSI ASC X12

ANSI recently formally approved widening of the X12 scope to include not just EDI but XML. Does this approval make X12 the North American XML standards-setting body?

KH: ANSI’s accreditation is not exclusive which means it may at some point accredit other groups to set standards based on XML. The appropriate statement should be that X12 is recognized as a XML standards-setting body not the XML standards-setting body.

Also, as far as I know, X12 has no official status outside the US, so I would not refer to X12 as a North American body.

UN/CEFACT is currently overseeing international XML standards. How will X12 and UN/CEFACT work together?

DB: They will continue the long standing relationship between the two. X12 has been a participant in UN/CEFACT and a lot of the work of X12 feeds into UN/CEFACT. There have been common members within the two groups for a decade or so and that will continue. The vice chair of X12 Ralph Berwanger is an active participant in UN/CEFACT leadership as well.

What changes are likely to occur organizationally within X12 as a result of this widening of scope?

DB: We have formed a new task group within the steering committee of X12 called the Convergence and Outreach Task Group, COTG for short. The group is continuing the efforts to bring together organizations and industry groups that are working on XML to see where we can capture best practices and reuse XML efforts and design rules, as well as perhaps converge, harmonize and create consistent standards that can be used across groups as opposed to having different groups create each separate one.

Postsecondary Electronic Standards Council’s XML Forum for Education is working to keep the education community using the same, or at least compatible, flavors of XML. Will there be an approval process within X12 so that education can work toward North American standards?

KH: Yes. An XML Procedures Group was formed by the X12 Steering Committee at the February X12 meeting to address this need. I believe the goal is to have a draft procedure available for discussion by the June X12 meeting with the intent that the procedure would be in effect as early as the October X12 meeting.
RSA Security Inc. recently announced a partnership with EDUCAUSE, the National Institutes of Health, the Federal Public Key Infrastructure Steering Committee and several higher education institutions. As its part of the agreement, RSA will provide digital certificate management software, RSA Keon, for secure online communications and transactions.

The Higher Education Bridge Certificate Authority (HEBCA), the partnership’s electronic bridge, will operate as part of the Federal Bridge Certificate Authority, which supports the use of digital signatures between government and non-governmental institutions.

Through HEBCA, colleges and universities can submit documents, such as financial statements and student loan agreements, among others to federal agencies. In turn, federal agencies receiving information can use RSA Keon digital certificate management software to confirm and authenticate users.

“We’re very pleased to work with RSA Security, NIH and other partners as vital components of this important demonstration project of the two bridges,” said Mark Luker, vice president, EDUCAUSE. “RSA Keon digital certificate management software helps us cross-certify the digital certificates from numerous organizations, allowing for seamless, trusted online communications between all organizations.”

The RSA product is intended to eliminate interoperability problems by allowing seamless transfer with other certificate management solutions. In addition the software works in both the federal and higher education “bridges,” acting as a digital certificate cross-certification pathway for federal organizations and higher education institutions.

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Floor open for Board nominations

The terms of four members of the PESC Board of Directors will be completed June 30. Keith Riccitelli (Sallie Mae), Michael Sessa (NASLA), Dallas Martin (NASFAA), and Judith Flink (University of Illinois, Chicago) have generously given their time and talents to help guide the Standards Council to meet the standardization needs of the community and to build its membership. They have been extremely successful on both counts for which the organization is very grateful.

All four have agreed to serve another 2-year term on the Board, and their names have been added to the slate for election of Board members, which will take place electronically May 1 through May 8. The final count will be taken at the PESC member meeting, Thursday morning, May 9, at the Arlington Hilton and Towers in the Ballston section of Northern Virginia.

The floor is now open for any additional nominations. To be qualified, a candidate must be the official representative of a PESC member organization. Members may nominate themselves or, with permission, another PESC member in writing to Betsy Bainbridge, PESC Executive Director, at Bainbridge@StandardsCouncil.org.
Letters to the Editor

Meteor addresses XML-based security concerns

I wanted to reply to the article in the March 2002 “The Standard” which quotes Mark O’Neil, chief technology officer and joint founder of Web transaction security and integration specialist Vordel. He commented about the lack of security in programs that transfer data via XML. Meteor was the only such product mentioned by name.

The only real statement of substance is that “security is required at a higher level than the network access layer.” Technically this is correct. This is by design! The creators of SOAP (which Meteor is using) specifically wanted a protocol that abstracted the actual network layer. By abstracting the data away from the actual network access layer, SOAP transactions can run over HTTP, SMTP, or any other network transport.

Vordel does sell a product, VordelSecure, that should make securing these web services easier. However, the article implies that all web services not using their framework are not secure. This is absolutely incorrect. The Meteor Advisory Team and the Meteor Sponsors have put a tremendous amount of effort into securing Meteor. We recognized early on that sending plain XML is insecure and we have taken the steps necessary to secure the transactions.

From http://www.vordel.com/products/vordelsecure.html: VordelSecure fully implements XML security standards including XML Signature and SAML. In addition, VordelSecure enforces XML Schema and XPath-based rules at the web server, preventing unwanted data from reaching corporate business logic on application servers or internal systems.

These are the exact same mechanisms Meteor uses to secure its transactions. Meteor uses XML Signature and SAML for authentication. The High Performance Channel is the piece of Meteor that “[prevents] unwanted data from reaching corporate business logic.” Unless the Meteor request is independently authorized by the Meteor registry, no request will get to business specific logic.

Thank you for your time,

Tim Bornholtz
Solutions Architect
Priority Technologies, Inc.

Transfer method, not XML schema causes security issues

I would like to take this opportunity to express my opinion with regard to comments made by Mark O’Neil published on page 9 of your March newsletter. I will first tell you that I am a member of the Meteor Advisory Team and the Team Lead for Authentication.

I am not an expert on Web security, as I assume Mr. O’Neil is, and therefore cannot lend either a supporting or opposing opinion with regard to his comments. I can tell you that I found them to be somewhat conflicted with my limited knowledge of XML as it applies to Internet security.

See Letters, Page 8
It is my understanding that XML is a schema into which you attach or fill-in data. Moving an XML transaction between two places (I thought - but maybe I’m wrong) has nothing to do with the fact that the data is in an XML transaction. The options for moving the data remain the same regardless of whether you are using XML or some other data format. If this is true, then the security issues involved in moving XML data are the same as they are when moving any other data. Perhaps, as Mr. O’Neil pointed out, it is standard practice to send XML data over unsecured ports. But this does not mean that XML data MUST be send over an unsecured port.

Again, I don’t hold myself up as an expert on this subject, but to my way of thinking, the statement that “XML is considerably less secure” is both misleading and inaccurate. Is my thinking off? Was Mr. O’Neil perhaps misquoted?

In closing I’d like to ask that if you are of the opinion that Mr. O’Neil’s comments are accurately reflected in your publication, and he in fact does believe there is a security issue that is specific to XML as opposed to the common practices used in implementation of XML, that you send me his email address so that I might correspond with him directly.

Sincerely,

Charlie Miller
CIO, RIHEA

Editor’s note: Mr. Miller is correct in that the problems associated with XML referred to by Mr. O’Neil are related to the way the data is transferred and not to the schema itself. As the article in the March edition of the standard stated it is “standard practice to send XML data over ports allotted for web traffic, thereby bypassing firewall restrictions that normally recognize and filter network traffic...” This does not mean that security measures cannot be put in place to address this weakness, nor does it mean that all XML-based data transfer is accomplished the “standard” way. As Mr. Bornholtz pointed out in his letter, Meteor has implemented security measures to address these issues and keep its XML-based data transfer secure.
GAO warns government about early adoption of XML

While a number of education-related exchanges are adopting use of XML, the GAO has published a warning to government agencies against early XML adoption. A recently released GAO report, “Electronic Government: Challenges to Effective Adoption of the Extensible Markup Language,” indicates that in the absence of formal policy and standards for XML governmental agencies should be cautious about adopting the Web standard.

While the report recognizes that technical specifications are established and maintained by the W3C, the GAO expresses concern about the variety of public and private sector organizations currently developing business standards.

“A number of different approaches to addressing the process of conducting business transactions have been proposed, including electronic business XML (ebXML), RosettaNet and XML-based Web services,” according to the report. “These different approaches continue to vie for support and offer functionality that is in part overlapping and incompatible.”

However, the report does admit that within certain well-defined professional sectors, “standard data vocabularies have been successfully developed.” “This is the role the XML Forum is playing for the education community,” said Ed Hauser of SCT, chair of the XML Forum Steering Committee.

Part of the problem, as the GAO concludes, is that the government itself has not developed governmentwide policies and guidelines and therefore could be subject to constructing data definitions that could not be shared or transferred without the aid of data translations services.

According to the report, neither the Office of Management and Budget, which is responsible for the development of government-wide IT policies and guidelines, nor the National Institute of Standards and Technology, which develops federal information processing standards and guidelines, have formulated an explicit strategy for XML adoption.

The GAO report recommends that the director of the Office of Management and Budget work with the federal CIO Council—an interagency forum for federal chief information officers—and the National Institute of Standards and Technology to figure out a government-wide strategy for XML adoption.

The report also suggests that the government create a registry for XML data elements and structures, and encourage agencies to use it.

“As elements of a government XML vocabulary become standardized through this registry on a de facto basis, the government would be in a better position at a later date to revisit the question of what commercial standards and vocabularies to officially endorse,” according to the report.

The entire report can be accessed at www.gao.gov, report number GAO-02-327.

Technology Tidbits and Standard Snippets

- While the Department of Education reported that it had received its one-millionth FAFSA on the Web application in late February, it took just over a month for it to reach the two-millionth. Hitting one million on Feb. 26 and two million on April 4—a milestone not reached until June 14 last year—is an indication of the “excellent response to FSA’s objective of increasing the number of Web filers,” according to the Department.

- Beginning April 15, Nelnet’s online Stafford loan applications will be electronic signature enabled. While Nelnet does plan to utilize the Department of Education-issued PIN as part of its electronic signature capability, it will also employ a PIN-less process. “The PIN-less process will rely on existing processes and controls to authenticate the identity of a borrower,” according to Nelnet release.

- The Department of Education has announced that it is postponing implementation of the Common Origination and Disbursement system from April 1 until the “beginning of May.” The delay is to “ensure full production readiness and capability”
when the system is implemented.

■ American Student Assistance successfully made an electronic submission to the National Student Loan Data System (NSLDS). Currently NSLDS is only submitted to via tape transfer. ASA is one of only four guarantors participating in a pilot to test submitting NSLDS data electronically.

■ Nelnet has completed its loan generation and loan servicing business system conversion project. The first conversion, which transferred Nelnet’s student loan servicing function from UNISTAR servicing system to the Nservice system, was completed in January. Nelnet’s full service loan generation business has been converted from UNISTAR to a platform called Ngenius. Nelnet anticipates that the conversions will enhance its system by providing long-term loan serving and generation platforms, expanding customer service and changing responsiveness and also improving integration to the Internet, among others.

■ The University of Colorado has implemented Sallie Mae’s Net.Pay electronic billing suite. Students can use the Net.Pay system by using their university-assigned ID and password to schedule payments and add other payers, such as parents, to the account. The e-billing system also allows students to pay for tuition, housing and other university costs.

■ A group of interactive television content providers recently unveiled a new set of open technology standards for making interactive TV programs intended to play on any TV set-top box or Web-based system. The production standards, developed by interactive TV company GoldPocket Interactive, have the backing of approximately 90 percent of the companies in the nascent industry, according to GoldPocket. The standards are based on a form of the Extensible Markup Language, or XML, which is widely compatible with the major interactive set-top boxes on the market today. Currently, content offerings are limited to program guides and some movies-on-demand, but down the road the systems promise things like e-mail or other services that could be used for educational purposes.

■ ContentGuard recently released control of its digital rights management language to a standards body. ContentGuard said it has contributed its extensible rights markup language, XrML, to the Organization for the Advancement of Structured Information Standards, a consortium working on XML standards. To create a home for XrML, other OASIS members had to agree to ‘sponsor’ a committee. Hewlett-Packard, VeriSign and Reuters are new supporters that have joined ContentGuard and Microsoft to form the Rights Language Technical Committee (RLTC).
PESC membership campaign underway

With PESC membership renewing each July 1, we ask that members and affiliates submit renewal forms and payments in a timely manner. At a minimum, renewal forms should be submitted by May 1. Invoices for membership fees can be generated when renewal forms are received by the PESC office.

For Affiliates, we offer active participation in the PESC XML Forum for Education, representation in standards-setting bodies (ANSI ASC X12 and UN/CEFACT), and special discounts and invitations to PESC events. In addition to these benefits, Members carry the right to vote on issues as proposed by the membership including elections for the XML Forum Steering Committee and the Board of Directors and are qualified to serve as a member of these two leadership bodies.

The Membership Form, Fee Structure and complete listing of benefits are posted on the PESC website at www.StandardsCouncil.org and can be downloaded at your convenience.

—Submitted by Michael Sessa, PESC Membership Chair

Technical Work Group requests user response

The Technical group has been discussing approaches to schema validation of code lists. We have identified a few different approaches but feel we need comment from a wider potential user base before we decide on recommendations. We ask the community to review these alternatives and indicate preferences.

The basic issue concerns the ability of XML parsers to validate coded elements (or attributes) against sets of values specified in the schemas. A run-time validation error is generated for such elements if a value in a document is not a member of the code list. Here are the alternatives we have identified:

1) For code lists that are created and maintained by the XML Forum, we could either do:

(a) Full validation of the coded elements by listing the valid values in the schema file

(b) No validation but publish the allowable codes only as documentation within the schema

The main argument in favor of (a) is to avoid passing invalid codes to applications. Arguments in favor of (b) are that applications often check for codes anyway, and code list maintenance has proven to be an administrative burden in other standards organizations.

The Tech group did not reach a strong consensus in favor of either option. Please indicate if you have a preference for (a) or (b).

2) For code lists that are created and maintained by organizations other than the Forum (e.g. state or province codes, ISO country codes) we could do:

(a) Full validation by listing the best, most recent version of the code list in the schema file

(b) No validation, but publish in the schema a pointer or URL to a place where the published list could be found.

The Tech group has a preliminary consensus in favor of option (b) because of the complexities of trying to keep up to date with code lists maintained by other organizations, and potential copyright issues with certain code lists.

If you instead have a preference for option (a), please indicate this in an email to forumtech@yahoogroups.com by Tuesday, April 16.

—Submitted by Michael Rawlins, Technical Consultant to the XML Forum
MEMBERSHIP FORM
JULY 1, 2002 - JUNE 30, 2003

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Voting Member (or Official Contact) Name and Title __________________________________________

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