Realizing the Value of HL7: Report from the TSC Chair

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The HL7 Working Group is putting a great deal of effort into making its projects, products and work groups more visible. This is already making it easier for those actively involved to see what is happening and to contribute more effectively. This effort has shown the huge amount of potential value that is being created. We are evolving an architecture and set of processes to make creating that value more effective. However, we have done too little work on realizing that value. We need to ensure that those who could benefit from HL7 products, projects and work groups are not only aware that they exist, but are also aware of the opportunities that they provide.

Realizing the value of HL7 will be hugely rewarding for all who have worked hard to make HL7 standards effective and will deliver on HL7’s mission of unlocking the power of healthcare information. By getting more usage out of the value that HL7 creates, the organization will be able to capture a small part of that value and invest in the additional tooling and communication needed to create an ongoing spiral of improvement.

I give many thanks to everyone who has helped us to get to this stage. Let us continue to work together to make HL7 even more efficient and visible, and to realize the value that it creates.

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At the recent board retreat, the HL7 Board addressed issues, problems and strategies related to Version 2 messaging, Version 3 messaging and the Clinical Document Architecture (CDA). The board concluded that HL7 needs to develop a strategic plan relating to these three standards with some urgency. The course of action agreed to by the board is the creation of a task force, appointed by the HL7 Chair and ratified by the board, to provide a draft strategy. In addition, one or more facilitators will be hired to define a methodology for getting input from members as well as a broader community, and with the concurrence of the task force members, carry out the plan. We hope to have the facilitator in place before the September meeting. The process will be open, although key members will be specifically identified to be interviewed for their input. Anyone can volunteer his or her opinions. The target date for completion of this initiative is January 2010.

While some have the view that the failure of uptake of Version 3 messaging in the U.S. represents an overall failure of Version 3 messaging, others disagree. It seems clear that Version 2 messaging will be around for some time, appropriately so, and that Version 2 can benefit by some things included in Version 3. Perceived complexities of Version 3 messaging will be addressed. Would a thoroughly documented library of Version 3 messages contribute to that solution? Will implementation guides directed toward different audiences help make Version 3 easier to use? What is the relationship between Version 3 messaging and the CDA as a data interchange vehicle? When does it make sense to use Version 3 messages, and when should CDA be used?

As soon as the task force and facilitator are in place, the details of the charge will be posted with an invitation to comment on these items.

TSC Updates Since the July Technical Steering Committee Newsletter

By Lynn Laakso
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The TSC requests that all Work Groups update (or create if you do not already have one) a Three-Year Plan, and an assessment of Strengths, Weaknesses, Opportunities, and Threats (SWOTs) in time for the September Working Group Meeting. In addition, I appeal to the co-chairs to review and update their Mission and Charter Statements (M&Cs), and Decision Making Practices (DMPs), for (or at) the September WGM. With the next release of the updated Web Site, anticipated at the
end of September, I would like to have those updated documents to include.

The TSC has offered some additional guidance on completing the Three-Year plans, for which recommendations are available from the TSC Documents page at http://www.hl7.org/Library/Committees/tsc/docs/Three-YearPlan_MC_Guidelines20090820_w_coverpage.doc. This was in response to a proposal by Project Services on the process work groups would follow to update (or create) their Three-Year Plans, as well as providing a response to a request to the TSC to provide on format and structure guidelines for Three-Year Plans (TSC Tracker# 1082, status=closed once GForge becomes available). As part of the Project Insight (PI) Review and Cleanup, we are working towards capturing those strategic plan or three-year plan items directly into Project Insight. Going forward, the Three-Year planning activities will reside in Project Insight. The result will be a “one-stop-shopping” place to see all active and planned projects for each Work Group. To view the information, use any of the Project Tracking Tools located in the Tools & Resources page on www.HL7.org, including the Searchable Project Database, GForge (via the TSC Files tab) and Project Insight itself. If you have questions, contact Lynn Laakso (lynn@HL7.org) or Dave Hamill (pmo@HL7.org).

TSC Member Composition Change
It is with earnest thanks to Jim Case, for his assistance at the Kyoto Working Group Meeting, that the TSC voted to terminate his ad-hoc membership.

Approved Projects
- EMS DAM for CIC WG (TSC Issue 1079 – Status=Closed; Project Insight ID=512) to develop Domain Analysis Model specific to emergency medical service in the pre-hospital setting.
- Anesthetic Record Implementation Guide for CDA R3 for Generation of Anesthesia Standards (GAS) - (TSC Issue 1084=Closed; Project Insight ID=513) to define a framework for CDA for the Anesthetic Record
- (JIC) Pharmacy IDMP Terminologies Project for Pharmacy (TSC Issue 1085=Closed; Project Insight ID=501) To support an initial HL7 informative ballot as well as all anticipated future work efforts on five component ISO work items for Ingredients/Substances, Dose/Unit/Route, UOM, MPIIDs and PhPIIDs.
- HL7 Project Review and Cleanup for Project Services - (TSC Issue 1078=Closed; Project Insight ID=511), which will have HL7 Work Groups review their projects in Project Insight and identify what status they are in. A team will be assembled to facilitate the Work Groups in their review. Project Insight will be updated to reflect the statuses and provide the ability for better project tracking and management. Reports generated from Project Insight should allow a way to predict which projects will be balloted in the next cycle.
- Genetic Variation for Clinical Genomics, (TSC Issue 1092 – Status=Closed; Project Insight ID=196) Revision was to add a v2 IG to the V3 project.
- TSC Product Visibility Project for the TSC, (TSC Issue 999 – Status=Open; Project Insight ID=478) Related to Roadmap Task #48 at Project Insight # 413, the TSC will identify the HL7 products, create the HL7 product list, create an HL7 “product brief” template to be filled in by steward work groups of the products, publish the HL7 products list, and identify governance for products
list maintenance.

- eLearning Course Program Administration for the Education WG, (TSC Issue 1112, Status = Closed; Project Insight ID=520), in which This project will mature the successful 2008 pilots of the e-learning course into a repeatable and manageable process within HL7. Its aim is to allow any affiliate to host editions of the e-learning course but at the same time retain control of the course contents and availability for HL7 Inc. (HL7 HQ and the Affiliate Council)

- Blood Center System to System Messaging for the Orders and Observations WG, (TSC Issue 1113 – Status=Closed; Project Insight ID=521), in which the initial scope of the project is to develop messaging for use during donor registration, medical screening, and phlebotomy to meet the growing industry demand for a standard means of communications between the various system solutions that provide different types of functionality to the blood center.

- National Healthcare Safety Network eSurveillance HL7 2.5.1 IG Project (NHSN IG) with PHER WG (TSC Issue 1117 – Status=Closed; Project Insight ID=515). With cooperation from CDC and National Healthcare Safety Network (NHSN) partners, this project will develop implementation guide(s) constraining HL7 Version 2.5.1 for purposes of reporting microbiology results, ADT, and pharmacy data. The implementation guides will support transmission of electronic surveillance data to the National Healthcare Safety Network. This is intended to be a US Realm only project.

Approved Products
- The TSC approves the HL7 Product List in respect to the TSC Product Visibility Project, (TSC Issue 999 – status=open, Project Insight ID=478). The first draft of the HL7 Product List is found on the HL7 Wiki at http://wiki.hl7.org/index.php?title=Product_List. The steward Work Groups for the identified products will be asked to provide additional detail on the product or standard, using a template. Watch your inboxes for your “Product Brief Request!”

- The Product List will include a new product category named “Education Services.”

Withdrawn Project Approvals
The TSC approved the following Notice of Withdrawal of Proposed ANS:

- HL7 V3 Regulated Studies: eDCI, for RCRIM; (TSC Issue 1064 – Status=Closed) the project predates Project Insight so no PI # was assigned.

Publication Requests—Process Clarification
The TSC accepted a recommendation that relevant Work Groups having submitted requests to publish Informative Documents or DSTU, that have not met the requirement that responses to comments be posted on the Ballot Desktop, should not have their requests approved. Additionally, Work Groups with published material not meeting this requirement will be given notice to get their reconciliation package posted, and if not rectified, the TSC will instruct HQ to close down their ballots. Please post your reconciliation material!
**Work on Enterprise Architecture and Roadmap**

The Enterprise Architecture Implementation Project (EA-IP) has been in a hiatus over the past cycle, largely to focus on helping to get as many “Alpha” projects off the ground as possible, for HL7’s (Services Aware) Enterprise Architecture Framework - (SA)EAF. As many of you know, the completion and stabilization of the (SA)EAF relies on getting real projects to begin to apply the SAEAF in the development of their artifacts and, in so doing, to help evolve and stabilize the (SA)EAF itself. Currently the ArB has approved an Alpha charter for SOA’s PASS (Privacy, Access, and Security Services) Functional Model project and also endorsed the new caEHR work. O&O’s Composite Order project as well as Vocabulary’s CTS2 are in the process of formalizing their charters while the Structured Documents WG as well as other projects are working to confirm their engagement.

Tutorial sessions are available at the WGM on Sunday free-of-charge to Work Group co-chairs for “Services and Service-Awareness in HL7” from 9 am to 12:30PM and from 1:45 to 5PM on “The SAEAF Behavior Framework.” A Wednesday Q4 session, “Enterprise Architecture Implementation Project Progress Update: (SA)EAF Implementation & Roll-out”, has been scheduled to provide a formal update on the status of the (SA)EAF and to launch the next stage of the ArB’s formal architectural and technical governance role. The various Alpha projects will also provide brief updates on their plans.

The EA-IP is expected to reinitiate its effort to work towards clarifying the overall Enterprise Architecture impacts of (SA)EAF during the next cycle.


**TSC Visibility Plans**

The TSC is making efforts to improve the visibility of the HL7 projects, products, and work groups. [see http://hl7tsc.org/wiki/index.php?title=Main_Page#TSC_Projects].

Project visibility efforts have been extended by the TSC to those involving HL7 participation in ISO as well as the Joint Initiative Council (JIC) projects. Our esteemed web developers have released a web page with information on “HL7’s Collaboration with ISO and JIC,” available at http://www.hl7.org/participate/isojic.cfm.

A product list has been approved, and a product brief template has been distributed to steward Work Groups, to provide a consistent format for the description of HL7 products. This material will be published and promoted on the HL7 website – Details of work in progress can be found at http://wiki.hl7.org/index.php?title=Product_List.

The TSC approved the Work Group Visibility Project proposal at its own committee level, which will be sent to the co-chairs and international affiliate chairs for review before formal approval. It is available at TSC Issue 997 – Status=Open. Its intent is to provide methods for creating visibility to the activities of the Work Groups, so that users, members, and other customers can find information on what the Work Groups are doing.

The Work Group Health documents are one effort to provide visibility to the activity level of the Work Groups. The Work Group Health documents can be found at http://gforge.hl7.org/gf/project/tsc/frs/?action=FrsReleaseBrowse&frs_package_id=121. Any comments on the accuracy of the statistics shown, or suggestions for changes to the indicators tracked would be welcome.
For any additions, updates or suggestions on any of these TSC promoted initiatives please contact Lynn Laakso (lynn@hl7.org).

**Viewing Projects and Accessing the TSC Issue Tracker**

**To view Projects:**

- Go to Project Insight at: [http://healthlevelseven.projectinsight.net](http://healthlevelseven.projectinsight.net) (this requires a PMO assigned login) OR
- Go to the searchable Project Database by [clicking here](http://healthlevelseven.projectinsight.net) OR
- The new URL for the Project List on GForge is by [http://gforge.hl7.org/gf/project/tsc/frs/](http://gforge.hl7.org/gf/project/tsc/frs/).

**To Access the TSC Issue Tracker, the URL for the new GForge is at [http://gforge.hl7.org/gf/project/tsc/tracker/?action=TrackerItemBrowse&tracker_id=313](http://gforge.hl7.org/gf/project/tsc/tracker/?action=TrackerItemBrowse&tracker_id=313).**

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**HL7 Tooling and Other Updates**

*By John Quinn*

**HL7 CTO**

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In the July edition of the HL7 Technical Steering Committee Newsletter, I wrote a rather lengthy article that laid out the case for our tooling strategy. This month I’d like to update you on some tooling-related decisions, the progress that has been made, and the challenges that we still face. I’d also like to update you on the progress of documenting the work that has been done on the HL7 Services Aware Enterprise Architecture Framework (SAEAF) and the US Standards Charter Organization (SCO).

**1. Tooling:**

I worked with the HL7 Tooling Work Group to develop a plan for the tools that we need to:

- Create a stable development and publishing environment for the Version 3 family of products;
- Provide a set of tools will enable the users of our standards to more easily create implementation specifications that they need to make use of our standards.

The overall tooling plan is illustrated in the following diagram that was created by Woody Beeler, PhD. It shows eight separate, but related, development tracts. The “A” tract at the top of the diagram represents work that needs to be done on our current Access-based PubDb. The “H” tract at the bottom of the diagram represents work on a new sharable artifacts repository that will be built to eventually replace PubDb.

Included in this high-level view are a number of projects and steps that also correct
existing deficiencies in our harmonization, vocabulary and OID harmonization, and maintenance processes.

Quite frankly, a lot of HL7’s approach to modeling and our subsequent methodologies are unique enough to HL7 that we end up requiring a lot of custom tooling to support both publication and use. The total conservative estimate for the investment that we need to make in tooling is in the neighborhood of $3.2M! This projected cost is in spite of the good work that has already been done and made available to HL7 by the UK’s NHS and the USA’s VHA through the Open Health Tooling (OHT) initiative.

Our current budget this year for HL7 tooling was set at $100,000. However, little of this is designated for developing new tools. The majority of the budget is actually allocated to what we spend each year to get the balloting, harmonization, and publishing of HL7 Version 3 completed each year. I have managed to make the case, and received approval to push this number to $220K in the 2010 budget—all of which will be dedicated to tooling. This is a significant increase. The HL7 Board of Directors and executive team at HL7 all agree that tooling and making our standards easier to use are two critical initiatives that must be addressed.

However, the simple reality is that at the rate of $220K per year. It will still take us far too long to build our tooling capabilities to the level that our customers and we need. The HL7 Board of Directors and the executive team have charged themselves to discover new ways to fund this organization so that we can meet this critical need.

2. Services Aware Architecture Framework (SAEAF):
Others have written articles about SAEAF and the approach that we are taking to make this our Enterprise Architecture. SAEAF enables the specification and development of interoperability capabilities that include messaging, electronic documents and services. As a group, the HL7 Architecture Board has expended hundreds of hours developing SAEAF, and creating draft documentation about SAEAF and its major components. This is an update on our efforts to get better documentation into your hands.

At the Kyoto meeting in May, we decided to seek professional technical writing assistance to edit and improve our draft documentation, and host it on the IBM DITA publishing platform that IBM has graciously agreed to make available to us.

HL7 issued an RFP in June, and after reviewing a large number of responses, we selected a proposal from Karen Smith of Rochester, MN. Karen has an extensive technical writing background, previously worked for IBM in Rochester, and has good experience using the DITA platform. We kicked off the project in mid-August and I have set a deadline of the end of this year for the final work products to be completed—this includes review of Karen’s products by the knowledgeable HL7 subject matter experts. I have asked Karen to have a sampling of draft documents for review by the time of the Atlanta meeting.

3. Standards Charter Organization (SCO)

Regarding a strictly “US Realm” matter, HL7, NCPDP, X12 and ASTM teamed together and launched the Standards Charter Organization (or SCO) in March. Since then, CDISC and the ADA have also joined SCO while ANSI, ONC, HITSP, IHE and WEDI participate as non-SDO observers. NCPDP’s Senior Vice President John Klimek is chairing the organization through March 2011. I was voted chair-elect and will start my two year term when John’s ends.

Over the last few weeks we have made significant progress. ONC’s Standards Advisory Panel has re-affirmed the HL7 Continuity of Care Document (CCD) (and Clinical Document Architecture (CDA) in general) as the mechanism that the US will be using to communicate clinical information. It is now more important than ever that we make it easier for our users to create CDA templates and the XML that is used in them.

This affirmation by the ONC has ignited interest in the adoption of CDA by other SCO members for holding the clinical data that will be necessary for their standards to communicate in the HITSP Implementation Specifications that they participate. HL7 has agreed to develop a demonstration where our Pharmacy Work Group is creating a CDA representation of the NCPDP script standard for ambulatory electronic prescribing. Scott Robertson (HL7 member from Kaiser Permanente, current NCPDP Board of Trustees Member, and previous developer of a somewhat similar effort involving acute care to ambulatory care prescriptions several years ago) has helped organize this effort in both organizations.

If SCO members can make their standards foundationally more similar and provide robust similarly architected methodologies for creating implementation specifications, HITSP’s job would be much easier, and we will have done what we need to do to make it more likely that interoperable EHRs will become a reality in this country.

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