HL7 NEWS
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In This Issue...

A Year of Change

Charles Jaffe, MD, PhD

It's been a remarkable ride. This year has been filled with extraordinary changes and with great anticipation of what will lie ahead. A reflection on the growth that HL7 has undergone helps paint a canvas that is much larger and more vibrant. The Strategic Initiative, the blueprint for a more effective organization, has been shepherded by Chuck Meyer, who brought to the Board his strong leadership and his passion for change. The baton now passes to Ed Hammond, who continues to astound with his energy and innovation, including the creation of the Clinical Interoperability Council, which is helping to define a new constituency.

Through the tireless leadership of Woody Beeler, we have witnessed the reinvention of the technical organization. The creation of a new framework for the Technical Steering Committee will certainly help drive the development of our products and services. The community of domain experts will be lead by our first Chief Technology Officer, John Quinn, who has contributed to HL7 since its creation. More importantly, he brings knowledge of the international landscape and an unparalleled reputation for achievement.

In a different vein, our outreach and public relations efforts will morph into a new Marketing Council. This group, lead by Jill Kaufman, has plans for enriching our brand and expanding our reach on the global stage. Adding greatly to these programs will be Sherold Barr, who assumes the role as our first Director of Marketing. She brings a unique skill set for both fundraising and public relations. All of this will be augmented by a new relationship that HL7 has built with HarrisInteractive, which boasts a leading reputation in market research and brand development.

The Education group has ambitious plans for growth in new areas and technologies. Not only have they identified new affiliates with whom to partner, but new organizations to support these processes. We will add new capabilities to our offerings, including electronic educational tools and support for multi-dimensional training with partners in the academic and technical communities. In addition, we will continue our commitment to our affiliates, while bringing one working group meeting to the international community each year. Not only will HL7 hold its September 2008 meeting in Vancouver, but we are negotiating an agreement to meet in Kyoto, Japan, in 2009.

Our role in the international community continues to grow. As we build new relationships with organizations in collateral areas, the breadth of our experience expands with it. This year, we have signed memoranda of understanding with GS1, the international barcoding and RFID standards organization, and with SAFE Biopharma, the body responsible for identity and access management in the realm of regulated clinical research. We have also cemented existing relations with organizations that are so vital to our success, including CDISC and AHIMA. Perhaps most importantly, we have initiated a trilateral agreement among HL7, ISO and CEN. Part of our charter will be both the harmonization of our respective standards, as well as the identification of gaps within those standards. At the heart of the charter lies the Joint Initiative Council, which steers the course for the component members, and which will be chaired through 2008 by Ed Hammond.

To many of the volunteers, the management of our resources has been hampered by the shortcomings of our web capabilities. By the January Working Group meeting, the new website will be unveiled and many new features enabled. These will facilitate cooperative efforts within and between Technical Committees, and will offer valuable management tools for the Technical Steering Committee. In addition, the public face of HL7 will be enhanced with a Web presence that is both more usable and more supportive of our educational outreach. A special thanks also goes to Microsoft Corporation, which has generously provided us with the management tools that form the central functional component of the site.

As we announced in Atlanta in September, the strategic vision of HL7 has been revised. This will give our leadership a better opportunity to enunciate our long-term goals, and we now have plans underway for a five-year roadmap. The framework for this document was driven by the grass root efforts of our volunteers and by the growing requirements of our stakeholders for clearly defined development objectives and the timetable by which they should

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Meet HL7's First CTO:

John Quinn discusses his new role as Chief Technical Officer

John Quinn

Recent restructuring at HL7 has resulted in the addition of a new level of management, including the appointment of John Quinn as chief technical officer. The former Technical Committee Chair discusses his new role, the reorganization, and the goals of the executive team:

Q. What do you plan to achieve during your tenure as CTO of HL7?

1. Implement HL7's product and services strategy in conjunction with the CEO
2. Oversee the timely delivery of standards
3. Support the harmonization of standards with other SDOs

Q. Why is HL7 hiring a CTO now?
HL7 began an internal review of its structure and process in 2004. The Robert Wood Johnson Foundation approached HL7 in 2005 with a proposal to improve the organization's efficiency. The RWJ analysis suggested a CEO and CTO were essential to improve the business-like operation of HL7, coordinate technical expertise, and reach out to stakeholders to align objectives.

Q. What is the role of the CTO?
The CTO will report directly to the CEO and the Board of Directors. He will lead HL7's Technical Steering Committee and oversee the timely delivery of standards. He will support the harmonization of standards with other standard development organizations and implement HL7's product and services strategy.

Q. How is the CTO position different from John Quinn's role as TSC Chair?
The previous position of TSC chair was authorized by HL7's by-laws and placed the TSC on the HL7 Board of Directors. However, beyond that, the TSC chair had no particular authority to drive the direction or speed of the development of HL7's products.

Both the new TSC and the CTO are now given the charge of directing the direction and speed of the development of HL7. Of course, we are still a volunteer organization and we are dependent on the skills and talents of our volunteers for the rich content of our standards. The big difference now is that the HL7 Board has delegated the responsibility for the day-to-day decision-making and management of HL7 product development to the new TSC and the CTO.

Q. Why is Accenture supporting the position of CTO for HL7?
Accenture has always supported open standards as one of its priorities. Accenture will financially support my position as CTO of HL7; at the same time, I will remain an active Accenture employee.

Q. How will you divide your time between HL7 and Accenture?
I will devote my time to the role of CTO of HL7. This is my primary responsibility. I will, however, continue from time to time to fulfill responsibilities for Accenture as time permits.

Q. How will your position of CTO interact with HL7's Board of Directors?
I will report directly to the CEO and to the HL7 Board of Directors.

Q. How will the CTO role interface with other SDOs?
Existing relationships will be enhanced and new relationships forged as we develop our global product strategy.

A Year of Change, *continued from page 1*

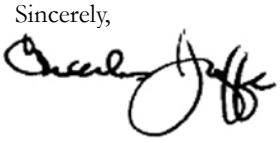
be achieved. The terms for the Roadmap were enhanced, in part, by the first Stakeholder's Roundtable, held at the Cleveland Clinic in October. We have made a commitment to deliver an initial version of this program to the Board of Directors before the new year.

The growth of HL7 has placed an increased demand on our resources. Not only have we committed to the significant increase in full-time employees, but we also have plans to grow our educational programs, our development tools, and our communication and marketing strategies. These programs will not take place without new and innovative approaches to organizational funding. Plans are under way to strengthen our bottom line with new alliances, new sources of revenue, and novel approaches to resource development and management.

With all of the transformation under way, some things never change. Home is still in Ann Arbor, where college football remains more important than the Hollywood police blotter. The team that provides us the operational support, lead by Mark McDougall and Karen Van Hentenryck, continue to excel. The volunteers who are responsible for the innovation of our organization tirelessly add to the remarkable list of achievements. As a result, the global recognition of HL7 continues to grow within the communities of providers and collaborators.

In closing the book on this year, I would like to offer my sincerest thanks to each and every one of you for making it all possible. I also want to extend my warmest wishes to you and your loved ones for a very joyous holiday season and for a new year filled with peace and happiness.

Sincerely,



Charles Jaffe, MD, PhD

Stepping Down, But Not Out

By Chuck Meyer, Chair, Health Level Seven

Chuck Meyer

As I look back on the last two years, I find that I have a great sense of optimism for the future of HL7. I'd be the first to admit that our transition has not gone as smoothly or as quickly as I might have hoped, due partly to missteps on my part and failing to fully appreciate the inertia that needs to be overcome in order to affect organizational change. Having to engage a membership of volunteers to embrace the necessity for change proved more of a challenge than I suspected. Nonetheless, we have made significant progress toward achieving our objective of a restructured and reinvigorated HL7.

Bringing on a Chief Executive Officer— with many thanks to Intel for their magnanimous support of that effort, and to Charles Jaffe, MD, PhD, for stepping up to the challenge of that office— has already produced results that have exceeded early expectations. Dr. Jaffe's untiring efforts to further the visibility of HL7 and instill a greater appreciation for its standards have been received enthusiastically around the globe. We also extend thanks to Accenture for supporting the growth of our executive team through the engagement of John Quinn as our Chief Technology Officer. John's industry knowledge, combined with his long tenure as the Technical Chair of HL7, will serve to bring direction to our standards development effort, which is now entrusted to a revitalized and reorganized Technical Steering Committee. The TSC has the daunting task of bringing structure to the process of supporting the standards initiatives that bubble up from the membership, while also integrating top down intitiatives, which may take the form of mandates from federal agencies into the project cycle. The TSC will also be heavily engaged in supporting and enhancing membership involvement at all levels.

As I write this, you are considering adoption of the streamlined Bylaws, a critical first step in our formal reorganization process. The Bylaws define the revised structure of our Board of Directors, designed both to accommodate additional representation from our affiliates, the international arm of HL7, and to engage healthcare thought leaders in developing our organization's strategy for the future. The Bylaws have been streamlined to ensure that they meet and support our articles of incorporation; they do not define any HL7 process or policy, especially as it relates to submission of our standards to the American National Standards Institute. Once you, the membership, adopt the Bylaws, we can roll out the Governance and Operations Manual (GOM). The GOM will be a composite of our current Policy and Procedure Manual, those articles and sections removed to streamline the Bylaws, and other HL7 process documentation. Our objective is to provide a clear and comprehensive guide to HL7 process and policy.

As I prepare to pass the Chairmanship to Ed Hammond, PhD, and assume the role of Vice Chair of HL7, I look forward with great anticipation to the future. An HL7 Architecture and Roadmap of Standards Development are in the works. The CEO, CTO, and executive staff are considering the appropriate components of an HL7 business plan. We continue to enhance our outreach efforts to engage and better serve the standards requirements of clinical and professional organizations— a priority for Dr. Hammond. Our collaboration with other standards development organizations--both accredited and industry de facto, and at the national and international level—is at an all time high and continues to grow. Our expectations are boundless, our horizons limitless. So I will close with best wishes to all of you for a joyous and wonderful holiday season and a happy, safe, and productive New Year.

Chuck Meyer

Chair, HL7

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G'day From Down Under

Update from Headquarters

By Mark McDougall, HL7 Executive Director

Medinfo

Since 1995, HL7 has had a significant presence at the tri-annual international medical informatics-focused conference called "Medinfo." The location of these meetings has spanned the globe, including:

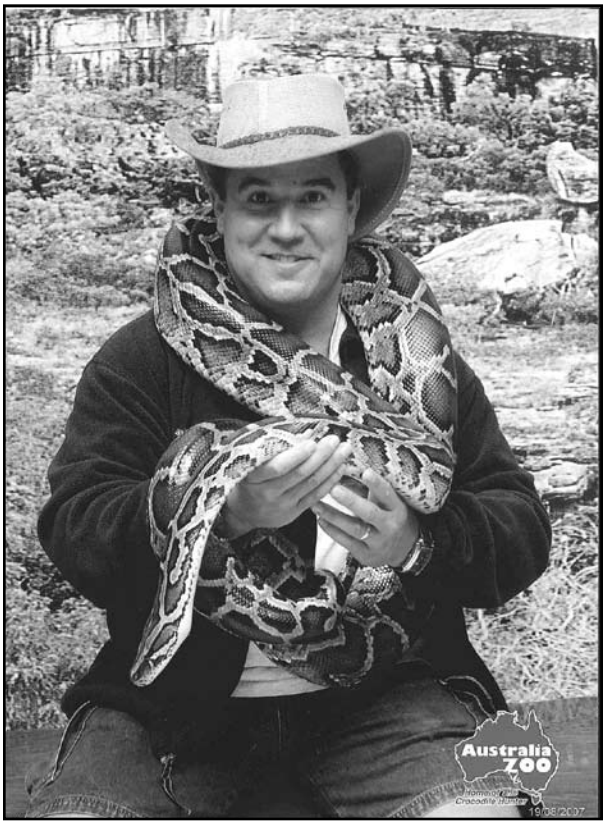
- Vancouver, Canada (1995)
- Seoul, Korea, (1998)
- London, England (2001)
- San Francisco, CA, USA (2004)
- Brisbane, Australia (2007)

This year's event convened at the Brisbane Convention Centre on August 20-24, 2007, and featured more than 300 presentations and more than 100 exhibitors. HL7's presence included an exhibit booth that was shared with HL7 Australia. I would like to extend a sincere thank you to Klaus Veil and Hazel Condon for their assistance in getting everything we needed for HL7's booth.

Immediately next to HL7's booth were booths for Australian's National E-Health Transition Authority (NEHTA), Standards Australia, as well as the Australian Healthcare Messaging Laboratory (AHML). Please see sidebar for more details on AHML's services, which are offered and utilized by hundreds of organizations from around the globe.

Once again, HL7 hosted its popular reception for many of the world's leaders in medical informatics. Many individuals with direct and indirect ties to HL7 also made presentations at this year's Medinfo.

We certainly enjoyed visiting Australia (a.k.a. "Oz") and thoroughly enjoyed meeting many wonderful and fun-loving Aussies. I quickly discovered that Aussies are generally very laid back (I heard "no worries" a hundred times). I visited an incredible rainforest and had a great time at Steve Irwin's amazing Australian Zoo, where I fed a kangaroo and held a koala. By the way, koalas are not bears. I discovered that Americans often incorrectly refer to them as koala bears; I was almost shot when I made that mistake. I saw huge crocs and, my favorite, Tasmanian Devils. I also had a 10' python wrapped around my shoulders and arms without having a heart attack. We also had a fun night partying at Medinfo's grand gala reception. Simply put, the country is spectacular and the people are friendly, relaxed, and lots of fun.



Mark and "friend" down under

Australian Healthcare Messaging Laboratory

The Australian Healthcare Messaging Laboratory (AHML) promotes and facilitates the adoption of conformant implementations of healthcare messaging standards. AHML provides an automated instant online message testing service, conformance and certification services and client specification implementation. AHML currently provides testing for HL7 Version 2.x messages from sending systems and is very useful for developers during development. AHML has over 370 users from 31 countries. For more information, visit www.ahml.com.au

Overall, the event was a big success for HL7 and we look forward to continued participation in Medinfo every three years as well as other international events. In 2008, HL7 will have a presence at the Medical Informatics Europe (MIE) conference in Goteborg, Sweden. The next Medinfo conference will be in 2010 in Cape Town, South Africa. HL7 will once again have a presence at Medinfo 2010 and we hope to see many of you at these conferences.

Plenary Meeting

Our 21st Annual Plenary and Working Group Meeting convened in Atlanta, Georgia September 16-21, 2007. The topic of the Plenary program was "HL7: Transformation in Healthcare," and keynote addresses were given by Leslie Lenert, MD, Director, National Center for Public Health Informatics, Centers for Disease Control, and John D. Halamka, MD, Chair, Healthcare Information Technology Standards Panel (HITSP). Following the keynote addresses, HL7's Chief Executive Officer, Charles Jaffe, MD, PhD, spoke about HL7-Specific Transformation. The program concluded with a panel session entitled "HL7 as the Catalyst for Transformation of Healthcare IT around the World," moderated by Dr. Halamka. Panel members included Diego Kaminker, Chair, HL7 Argentina; Yun Sik Kwak, Md, PhD; Dennis Giokas, CT, Canada Health Infoway; and Jos J. M. Baptist, Senior Advisor Standardization Processes, NICTIZ, the National ICT Institute for Healthcare in The Netherlands. The program was a success and we thank all who participated.

I am also pleased to recognize the following organizations that sponsored key components of our 21st Annual Plenary and Working Group Meeting:

Representatives from HL7's 2007 Benefactors accepting their recognition plaques at the Wednesday morning general session in Atlanta.

- **Gordon Point Informatics** – Wednesday's Afternoon Snack Break
- **iNTERFACEWARE** – Lanyards
- **LINKMED** – Daily Morning Coffee Breaks
- **Microsoft** – Networking Reception
- **Orion Health** – Onsite Meeting Guide
- **QuadraMed** – Meeting Brochure
- **THOMSON** – Monday's Continental Breakfast and the MnM Facilitators' Roundtable Dinner

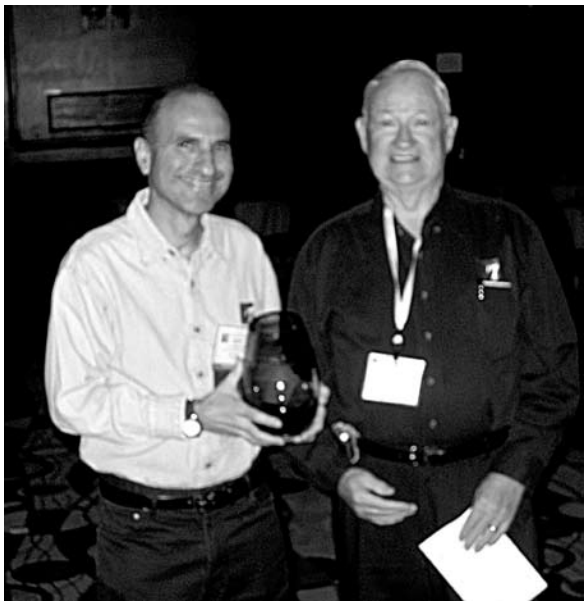
The additional sponsorship support provided by these organizations contributes heavily to HL7's meeting budget and is much appreciated.

Plenary and Working Group Meeting sponsors accept their plaques from Chair Chuck Meyer

Recognition and Awards

11th Annual W. Ed Hammond, PhD Volunteer of the Year Award Recipients

It is amazing to realize that we are already in the eleventh year of recognizing incredible efforts by our vast number of dedicated volunteers. While there are certainly dozens of individuals who merit this recognition each year, the Awards Committee is challenged to limit the annual award to only a few. This year's recipients have contributed hundreds of hours, if not thousands, and have certainly served HL7 extremely well for many years. As Ed mentioned during the awards ceremony, we are honored and pleased to recognize this year's recipients of the W. Ed Hammond HL7 Volunteer of the Year Awards. Their names are listed below, along with two photos.



Amnon Shabo, PhD, receives his Volunteer of the Year Award from Ed Hammond

- Hans Buitendijk
- Jim Case, MD
- Thomson Kuhn
- Ken McCaslin
- Amnon Shabo, PhD

Please see the article on page 18 to read details of their many contributions to HL7.

The 11th Annual W. Ed Hammond HL7 Volunteer of the Year Awards were presented by Ed Hammond at the Plenary meeting in Atlanta, GA to (left to right) Hans Buitendijk, Jim Case, Thomson Kuhn and Ken McCaslin

Recognizing our Benefactors and Supporters

A special thank you is extended to our 2007 HL7 benefactors and supporters. We are thrilled that these 35 firms, listed on page 20, make up the all time highest number of benefactors and supporters for HL7.

Organizational Member Firms

As listed on pages 29-31, HL7 is very proud to report that the number of HL7 organizational member companies is at an all time high, including 530 companies. We sincerely appreciate their ongoing support of HL7 via their organizational membership dues.

In Closing

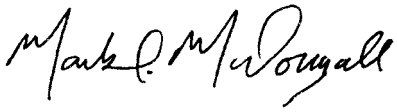
As this article will be published prior to the upcoming holidays, I wish to close with a heartfelt thank you to all of you who have made a positive difference in my life and/or in the lives around you. Each day there are so many wonderful acts of kindness and beautiful experiences to enjoy. Unfortunately, there are also a lot of horrible things that are going on in our world, many of which I would certainly change if I were in charge. I am reminded of two very popular quotes to share with you, including one saying.

Think globally, act locally

And for the prayer...

God grant me the serenity to accept the things I cannot change;
the courage to change the things I can;
and the wisdom to know the difference.

On behalf of the HL7 staff, we extend to you our best wishes for good health, much happiness, and lots of fun this holiday season and beyond.



Pediatric Group Explores Use of CDA for Quality Measurement Reporting

By the Quality Reporting Document Architecture Project Team

Healthcare institutions routinely collect and report performance measure data to improve the quality of care provided to patients. Measure data conforms to the requirements of defined "quality measures," which are written and maintained by institutions concerned about healthcare quality. Current data collection and reporting activities rely upon a variety of mechanisms that range from structured paper to electronic data entry formats – usually derived from claims-based data sets or manual data abstraction. With the diffusion of electronic health record systems (EHRs), the HL7 Pediatric Data Standards SIG (PeDSSIG), through a private collaborative, is developing an EHR-compatible standard for communicating patient-level, quality measurement information across disparate healthcare IT systems.

The collaborative is dedicated to the belief that EHR-compatible standardized reporting of quality measure data will make it easier to support quality measurement within HIT products, decrease the reporting burden for providers, and improve the quality of data used for measurement.

In the first phase of the PeDSSIG's "Quality Reporting Document Architecture" (QRDA) project, the team confirmed the feasibility of using HL7 Clinical Document Architecture (CDA) as the baseline for developing a standard specification for communicating pediatric and adult quality measures for both inpatient and ambulatory care settings. The CDA is a document markup standard that defines the structure and semantics of clinically-relevant documents for healthcare information exchange across EHRs.

The project team developed sample QRDA instances from an adult use case developed for the Center for Medicaid and Medicare Services' (CMS) Doctor Office Quality–Information Technology (DOQ-IT) initiative (defined as a HL7 Version 2.4 messaging specification), and a sample pediatric quality measure from the Joint Commission Pediatric Asthma Measures.

In addition to determining the feasibility of using HL7 CDA, initial findings include QRDA's:

- Interoperability with vendor certification requirements from the Certification Commission for Healthcare Information Technology (CCHIT)
- Interoperability with requirements from the Healthcare Information Technology Standards Panel (HIT-SP) through use of Continuity of Care Document (CCD) templates
- Support for quality measure data drawn from the full clinical record
- Flexible workflow – with the ability to support initial reporting needs, to make updates, and to accommodate single instances that combine data from multiple encounters
- Ability to validate measure compliance by using Extensible Markup Language (XML) expressions and readily-available parsers, which transform input text into a data structure
- Flexibility of displays in mimicking clinical reports or statistical data sets
- Ability to report single-patient or denominator (population) data —as with the Centers for Disease Control's (CDC) Healthcare Associated Infection report "HL7 Draft Standards for Trial Use" (DSTU)

The QRDA is compatible with parallel industry efforts that are addressing the quality landscape, including the American Health Information Community (AHIC), Healthcare Information Technology Standards Panel (HITSP), and Integrating the Healthcare Enterprise (IHE).

The project team is currently shaping plans for phase two work, which could include an HL7 DSTU ballot, a production pilot and continued coordination with related national initiatives. Further experimentation could highlight use of QRDA and CDA for decision support, and compatibility of the QRDA with measure definition specifications.

The QRDA project received support from the Alliance for Pediatric Quality – a joint effort of the American Academy of Pediatrics, The American Board of Pediatrics, Child Health Corporation of America, and the National Association of Children's Hospitals and Related Institutions, which works to accelerate the use of HIT in quality improvement for child healthcare. The American Health Information Management Association (AHIMA) and the Iowa Foundation for Medical Care also contributed resources. The project team will seek additional support for phase two work and welcomes those who are interested in collaborating to contact Joy Kuhl, PeDSSIG Administrative Co-Chair, at joy.kuhl@chca.com.

HL7 National Library of Medicine (NLM) Contract Summary

By the HL7 NLM Project Team

Healthcare data integration ain't what it used to be! Where once upon a time the focus was in connecting various operational systems within facilities, today's requirements increasingly call for the sharing of clinical information on a far broader and more distributed scale. Personal or Electronic Health Record (P/EHR) infrastructures need to communicate with other such infrastructures on a regional and national scale. Moreover, such communication of healthcare data must be unambiguous and, ideally, computable. These requirements for interoperability have placed and continue to place significant pressure on the associated data integration standards.

HL7 has faced this challenge by expanding its standards portfolio through the inclusion of object-oriented specification structures based on the Reference Information Model (RIM). HL7 V3 message specifications, as well as specifications based on the Clinical Document Architecture (CDA) – both of which are built on the RIM foundation – support EHR initiatives around the globe. More recently, HL7 has also recognized the crucial role of implementation guides in rounding out the detailed integration specifications needed by implementers.

In 2004, a contract was established between HL7 and the National Library of Medicine. Scheduled for completion in August 2008, this contract provides an important opportunity to advance work in these areas through separate but complementary project streams. The Office of the Secretary, HHS, and the Agency for Healthcare Research and Quality (AHRQ) joined with NLM to fund the contract.

EHR Stream

The EHR stream was focused on supporting pilot implementations of EHR data interchanges through the collaborative development of associated implementation guides.

The Markle Foundation's Connecting for Health (CFH) initiative provided an initial group through which to explore some of the potential requirements. This dialog helped shape the project's "go forward" characteristics and also surfaced the need for, among other things, a SCRIPT to HL7 V3 mapping of the medication history transaction. An initial mapping was subsequently developed in collaboration with the National Council for Prescription Drug Program (NCPDP) and RxHub and is available on the HL7 website.

The development of sample implementation guides was undertaken in collaboration with Accenture and Northrop Grumman, two contractors leading consortia to develop Nationwide Health Information Network (NHIN) prototypes as part of a contract with the U.S. Office of the National Coordinator for Health IT (ONC). These prototypes both leveraged HL7 V3 specifications to implement and demonstrate quite distinct NHIN architectures. The illustrative guides that were produced reflect selected transactions from the respective prototypes.

In order to support the development of these guides, HL7 tooling was enhanced to merge features from other international tooling streams. As a result, the core Visio infrastructure now has full support for annotation of models and improved linkage to vocabulary value sets. These annotations allow for the formal inclusion of business information and implementation guidance. Moreover, this information can now be leveraged by the enhanced V3 generator to produce annotated walk-throughs of V3 models. Finally, an MS-Word template infrastructure was developed to allow implementation guide writers to further harvest this information in the development of guides. Given the significant enhancements planned for V3 tooling under the broader tooling strategy, these various components reflect an important prototype to be incorporated into the longer term tooling offerings.

Building upon the Accenture and Northrop Grumman guides, a basic, biochemistry-focused lab result guide was developed to illustrate value set bindings using the binding syntax presently being balloted. This work, undertaken in collaboration with the vocabulary stream, demonstrates a method of tying vocabulary domains referenced in message specifications to the associated value set definitions using realistic examples for basic chemistry result reporting. This work will serve as a basis for development of additional implementation guides to support the ongoing Health Information Technology Standards Panel (HITSP) effort in the U.S.

Materials pertaining to the NLM EHR stream are available on the HL7 NLM Contract web page (http://www.hl7.org/nlm-contract/index.cfm). For more information, please contact Marc Koehn (Marc.Koehn@GPInformatics.com).

Vocabulary Stream

The Vocabulary stream of the NLM Contract aims to develop and apply methods to ensure alignment between the HL7 vocabulary standards and standards designated for use in U.S. Federal Government systems for the electronic exchange of clinical health information (e.g., SNOMED CT®, LOINC®). To date, this stream has focused on the review of the HL7 vocabulary database, and the mapping of HL7 vocabulary tables to Consolidated Health Informatics (CHI) recommended standard vocabularies. These products will be available on the HL7 website in the near future.

The CHI mapping effort is ongoing. The work, lead by Ted

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HL7 Website Strategy Update

By Ken McCaslin, Co-Chair, Electronic Services Committee

Ken McCaslin

In the last issue, I asked what experiences you had while surfing the web, pointing out that I, myself, had few positive experiences. I discovered that web development is not an exact science. A lot of web services are centered around best practices, or what is perceived to be the best based on the experience level of the user. In the last article I outlined that our audience ranges from the newbie to the highly experienced.

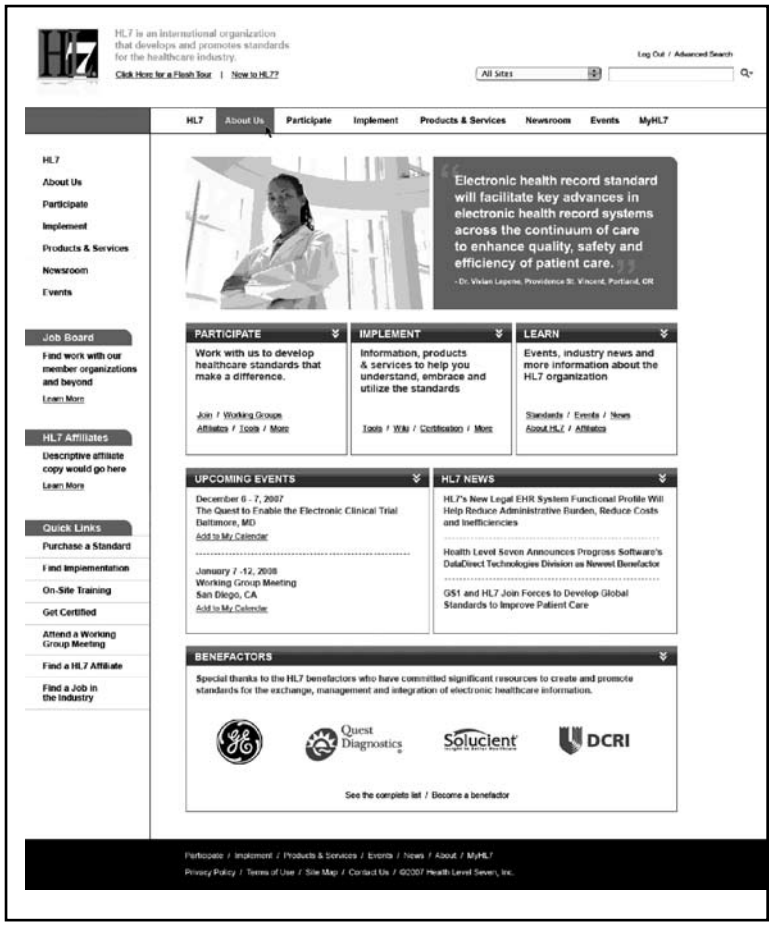
When visitors log on to a retail website, the visitor usually chooses the site purposefully based on the product they're seeking to buy. Success in this situation might mean that the retail site carries the product and has it in stock. However, our users often log on to the HL7 website blindly, without knowing exactly what kind of information or services they are seeking. Often a colleague has recommended that they look into or learn about the HL7 organization, and it may be the first time they've even heard of HL7. Success for this type of visitor is more difficult to measure. A user may have difficulty finding information on specific topics of interest, such as EHRs or clinical genomics on the current website. Currently, users must be able to determine the difference between a Technical Committee (TC) and a Special Interest Group (SIG) to find the workgroup they are seeking. The new website will be organized in such a way that this knowledge is not necessary. Workgroups will now be organized alphabetically.If a work group feels it is important to distinguish itself as a Technical Committee versus a Special Interest Group, it can list it on its initial landing page.

During the General Session at a recent Working Group Meeting, we were able to provide a preview of our new website. As with any project, you need a good team. Our original expectation was that our co-chairs would migrate the content over to the new website and that each Work Group would determine what content would be migrated versus what would be archived. Our team recognized that training 100+ different individuals to migrate 20,000+ files was a recipe for disaster, even if it would save us money. We also realized that having some committees archiving while others were not created an additional complexity to the project that we were not prepared to undertake at this time. Intelligence won, and we will be hiring some college students near HL7 headquarters to work closely with the HL7 staff to migrate all content over to the new website. We asked the TSC Steering Division co-chairs to prioritize the movement of their committees to the new website. Wave one will be the first to move with wave five being the last. Regardless of the wave your Work Group is in, all will be moved within a 30-day window. The co-chairs will be tasked with validating the success of migration by reviewing the content against the old website.

Our vendor selected MOSS, also known as Microsoft SharePoint, as the web application. It has been pointed out that we are not using SharePoint to the maximum of its potential. When we put the RFP together, we made it insensitive to a target platform. We wanted the experts to drive the technology solutions for us. The advantage is that we did not force design requirements. We were able to have the vendor adapt to our needs using the technology they felt provided the best solution. Our new website will have barely scratched the surface of what SharePoint can provide. Once we have launched the new HL7 website, we can begin to explore the new functionality we have and pilot potential solutions to our needs. It will be important to pilot these tools to learn the impact on resources before rolling out a solution to everyone.

Prior to getting the project started, our target was to have registration for the January 2008 Working Group Meeting on the new website. There was a delay in completing our contract with the vendor and a further delay in purchasing the license for MOSS on the HL7 servers. As our vendor constructed the Project Plan, we realized that the work effort, combined with the initial delays, will cause us to miss some of the targets our aggressive plan projected. While we are only off by a few weeks, we did not want to delay the early bird registration just so you would gain experience on the new website.

Stay tuned as we begin to roll out the new HL7 website. It has been through your support and guidance that we have come this far. I appreciate your input and hope you continue to provide your feedback.



World Wide Web Consortium (W3C) Update

By Kevin E. Kelly, HL7 Representative to the W3C Advisory Committee

Recent Specifications from the W3C

Several recent specifications have been updated or released from the World Wide Web Consortium (W3C) that may be of interest to HL7 Committees:

- **CSS (Cascading Style Sheets) 2.1** has been released as a Candidate Recommendation. CSS simplifies web development by separating the presentation of style from the content of documents and simplifies web authoring and website maintenance.
- **The CSS Mobile Profile** has been released as a Last Call for comments. The CSS Mobile Profile is a subset of CSS for rendering web content on constrained devices such as mobile phones.
- A couple of specifications related to AJAX [Asynchronous JavaScript and XML(eXtensible Markup Language)] have been released as Working Drafts, including
  - √ The XMLHttpRequest object—this core component of AJAX is an interface that allows scripts to perform HTTP client functions, such as submitting form data or loading data from a remote website.
  - √ Progress Events, which describes five events and their interfaces that are used for data transfer in AJAX web applications.
- **GRDDL** (Gleaning Resource Descriptions from Dialects of Languages) has been released as a Recommendation. GRDDL enables authors to extract data from their documents automatically, allowing them to reuse their data and enrich it by connecting to the Semantic Web.
- The Compound Document Format Working Group released four Candidate Recommendations: **Compound Document by Reference Framework, WICD** (web Integration Compound Document) **Core, WICD Mobile** and **WICD Full**. WICD is a device independent Compound Document profile based on XHTML, CSS and SVG that describes presentation, linking and navigation behavior when multiple documents are combined to create rich web content.
- Lastly, the **XForms Third Edition** has been released as a W3C Recommendation for XML-based web forms.

Formation of the New OWL Working Group

A Working Group has recently been formed for OWL (Web Ontology Language). OWL is designed for use by applications that need to process the content of information instead of just presenting information to humans. OWL facilitates greater machine interpretability of web content than that supported by XML, RDF (Resource Description Framework), and RDF-S (RDF Schema) by providing additional vocabulary along with a formal semantics. To learn more about OWL, visit http://www.w3.org/2004/OWL/.

The Semantic Web for Health Care and Life Sciences Interest Group

In case you did not know, the W3C has a healthcare and Semantic web focused interest group. The Semantic Web for Health Care and Life Sciences Interest Group (HCLSIG) is chartered to develop and support the use of Semantic Web technologies and practices to improve collaboration, research and development, and innovation adoption in the Health Care and Life Science domains. The HCLSIG has some very interesting applications and implementations underway to demonstrate the value of Semantic Web technologies such as OWL and RDF for healthcare, including:

Kevin Kelly

- **The BioDash project,** is a Semantic Web prototype of a Drug Development Dashboard that associates disease, compounds, drug progression stages, molecular biology, and pathway knowledge for users. To learn more about BioDash, see http://www.w3.org/2005/04/swls/BioDash/Demo/.

- **The Active Semantic Electronic Medical Record (ASEMR) application, currently in development,** which demonstrates using OWL, semantic annotation of documents, and rule processing to reduce medical errors, improves physician efficiency and improves patient safety and satisfaction. To learn more about, ASEMR see http://www.w3.org/2005/04/swls/#asemr.

The HCLSIG has several Task Forces such as the BIORDF (Structured Data to RDF) Task Force, an Ontologies Task Force, an Adaptive Healthcare Protocols and Pathways Task Force, and a Drug Safety and Efficacy Task Force, some of which HL7 members are already working with. If you are interested in the W3C Semantic Web for Health Care and Life Sciences Interest Group, visit http://www.w3.org/2001/sw/hcls/.

New Offices Open in Brazil and South Africa

The W3C has recently increased its worldwide presence even more by opening new offices in Sao Paulo, Brazil; and Petoria, South Africa.

To Learn More about Web Technologies

If you are looking to get started or learn more about web technologies, the W3C produces some excellent tutorials and education material on web technologies. For example, tutorials exist for creating accessible internationalized web content. There are also tutorials and primers on specific web technologies such as: HTML, CSS, Semantic Web, SOAP, RDF, VoiceXML, XForms, XML Schema, and more. You can find the tutorials at http://www.w3.org/2002/03/tutorials.

If you have any suggestions about W3C work or HL7 interaction with the W3C, or are interested in collaborating with or joining a W3C working group or activity, please contact Kevin Kelly at kevin.kelly@us.ibm.com.

Congratulations *to the following people who passed the HL7 Certification Exam*

Certified HL7 V2.5 Chapter 2 Control Specialist

July 11, 2007
William M. Allison
Ananth Ganesh Benjamine Sudakkar
Bryant T. Biek
Suzy J. Helme
Michael J. Malling
Saurin Mehta
Darla R. Mosley
Michele Mueser
Jason D. Patterson
Yunwei Wang

July 19, 2007
Yaniv Atzmon
Michael L. Baker
David C. Barrett
Philip W. Ginder
Linda S. Lehman
Jonathan S. Nelson
Steve Parry
Michael V. Taylor
Shawn X. Zhan

August 6, 2007
Sridhar Ramachandran

September 20, 2007
Amber M. Gragg
Rajani Makam
James W. Marine
D. J. Pavucsko
Orlando Sanchez
Evan K. Sapp
Gail E. Scogin

October 15, 2007
James F. Boyd
Fraser B. Crow
Kevin C. Decker
Kent L. King
Roushanak Sedghi
Michael L. Stillwagner
Joseph W. Zabel

HL7 Canada

July 20, 2007
Andrea Adams
Nathan M. Domeij
Ron A. Dutton
Jim Qing He
Changjiang Mao
Shuang Shuang Zhang

HL7 India

June 30, 2007
Rana Roy Chowdhury
Chandrasekar Ganesan
Madhu Jain
Dwarakanatha Kothamathu
Vadlamudi Ravi Kumar
Soumya Shetty
Charan Raj Varadaraju

July 7, 2007
Gayathri Eswaran
Srividhyalakshmi Kasibalasubbiah
Suresh Babu Malli Subramanian
Singaravelu Muthian
Shanmugam Muthuraman
Ann Philip
Aarthi Raghavendran
Vijaya Kumar Selvaraj
Sreenivasa Reddy Nalamalapu
Ramasubramanian Venkataraman

July 14, 2007
Shiva Prasad Adhikarla
Venkata Srinivasa Rao Guntaka
Ritesh Kumar Manjupuria
Sriprakash Patnaik
Ravi M. Raju
Vishwa D. Prasad

August 11, 2007
Minesh M. Mepani
Vaishali S. Nambiar
Avanish K. Ojha
Harshad N. Puppalwar
Rakesh B. Shah

September 1, 2007
Sanjay P. Bathija
Alma Chandrasekharan
Finny S. Chellakumar
Dr. Sri Vidhya Jagadish
Ipsita Jena
Binesh Nambiar
Nidhi Pengoria

September 29, 2007
Naveen M. Chandrappa
Navin G. Kumar
Prashanth Kumar J. E.
Sravanthi Modugu
Robert Selvanadin
Mayank Sharma
Saloni Sharma

October 6, 2007
Priya Ardhanari
Swapnil Gupta
Shaik Anwar Hussain
Rajeev Kumar
Sandip Mondal
Narsozhan Naganadane
Akilandeswari Rengarajan

HL7 Taiwan

August 4, 2007
Chih-Hsien Chang
Chih Hung Chen
Han-Mih Chen
Chen Yen Chiu
Tien Yao Hsieh
Chun Lai Hung
Wey-Wen Jiang
Chia Yun Lee
Chin Mei Li
Chih-Jen Shih
Shin-Chien Tsai
Yi Cheng Tsai
Yuan Chu Wang
Yu Mei Wang
I Wen Wu
Lian Yuh Yen
Hao-Yung Yang

Certified HL7 CDA Specialist

July 11, 2007
Alvin F. Anderson
Janice M. Donahoe
Elizabeth K. King
Maggie S. Wong
Brian Whittle

September 20, 2007
Marla C. Albitz
Chad R. Bennett
Linda L. Blakeley
Nicolas Canu
Randy W. Carroll
Ana-Maria Estelrich
Aurelia E. Ford
Peter N. Gilbert
Kate Hamilton
Yan Heras
Benjamin A. Levy
Wenkai Li
Wuhong Li
Margaret A. Marshburn
Nancy L. McQuillen
Ning Zhuo

NLM Contract Summary

continued from page 8

Klein, is taking existing HL7 vocabulary tables/value sets and creating matches to the CHI-recommended vocabularies. Once created, the materials are offered to their sponsoring committee(s) for acceptance, revision or rejection consistent with current HL7 procedures. Most sponsoring committees have already gone through the review process or will be scheduled to do so between now and the January 2008 Working Group Meeting. A final step will be coordination with the vocabulary developers (e.g., the International Health Terminology Standards Development Organization (IHTSDO) for SNOMED CT) to verify the accuracy of mappings to their vocabulary. Please contact Ted directly (ted@tkleinconsulting.com) if you have questions or concerns.

Upcoming projects are still being determined at the time of this writing. Proposed projects include a review of the existing HL7 vocabulary database functionality and structure, as well as those HL7 artifacts which can support the ongoing work of the Health Information Technology Standards Panel (HITSP).

Safe-BioPharma Association and HL7 Announce Strategic Alliance to Improve Healthcare Systems and Delivery of Patient Care

SAFE-BioPharma Association and HL7 recently announced a Memorandum of Understanding (MOU) to collaborate on standards development for the Biopharma industry. Ultimately, this initiative will improve healthcare systems and the delivery of patient care by facilitating the secure and fully electronic exchange of information. SAFE-BioPharma will become an Associate member of HL7, and the two organizations will collaborate in a variety of ways, including joint meetings and working groups.

HL7 encourages creation of flexible, cost-effective approaches, standards, guidelines, methodologies, and related services for the interoperability of healthcare information systems. SAFE-BioPharma, also a non-profit, is an identity management and digital signature standard that promotes interoperability and integration among researchers, vendors, regulators, clinicians and other pharmaceutical and healthcare stakeholders.

"Our collaboration with HL7 will contribute to reducing costs and improving efficiencies by moving the SAFE™ digital standard closer to meeting the special needs of the broader healthcare community," said Mollie Shields-Uehling, President and CEO, SAFE-BioPharma Association. Entities using the SAFE digital identity and signature standard are able to engage in a broad variety of transactions without requiring costly paper back up.

"The SAFE standard has become a valuable asset for the biopharma industry, the clinical research community, and regulatory agencies. By extending the capabilities of SAFE to the domains served by HL7, we expect to provide a compelling advantage to providers and payers," said Dr. Charles Jaffe, CEO of HL7. "Our mission is to provide reliable standards for the exchange, management, and integration of data supporting patient care and the management, delivery, and evaluation of healthcare systems."

About SAFE

The SAFE standard provides a secure and regulatory compliant way to verify the identities of parties involved in business-to-business and business-to-regulator electronic transactions. The standard also facilitates fully electronic processes by creating a system of trusted identities and legally enforceable digital signatures. Through the SAFE standard, SAFE-BioPharma Association promotes interoperability and integration among researchers, vendors, regulators, clinicians and other pharmaceutical and healthcare stakeholders.

The SAFE digital identity and signature standard is managed by SAFE-BioPharma Association, a non-profit association whose members include Amgen, AstraZeneca, Bristol-Myers Squibb, Genzyme, GlaxoSmithKline, Johnson & Johnson, Merck, Organon, Pfizer, Procter & Gamble, Roche and Sanofi-Aventis. SAFE Vendor Partners comprise leading software and applications companies, including Adobe, Microsoft, IBM, Citibank, NorthropGrumman, and SAIC. For more information, visit www.safe-biopharma.org.

2008 Publishing Calendar

May 2007 Ballot Cycle

March 24—Ballot open date
April 28—Ballot close date
May 4-9—May Working Group Meeting
May 18—Project scope statement deadline for new content as well as committee intent to reconcile and advance status

September 2008 Ballot Cycle

August 4—Ballot open date
September 8—Ballot close date
September 14-19—September Working Group Meeting
September 28—Project scope statement deadline for new content as well as committee intent to reconcile and advance status

January 2009 Ballot Cycle

December 3—Ballot open date
January 5—Ballot close date
January 11-16—January Working Group Meeting
January 25—Project scope statement deadline for new content as well as committee intent to reconcile and advance status

Bringing the Vision of HL7 Version 3 Into Focus: The Version 3 Editing Project

By Sarah Ryan and Jay Lyle, HL7 Version 3 Technical Editors

In July of 2005, the HL7 Board of Directors decided that the Version 3 standard was due for a much-needed re-evaluation. Over the years, new developments resulted in inconsistencies within the support documentation. As with any group effort, the product's great strengths are offset by divergent assumptions that impede progress toward a clear, concisely written product that facilitates implementation. To address the perception that the standard is difficult to understand and implement, the Board drafted an RFP to review Version 3 standards, identify issues, and suggest remedies for errors in the actual methodology, as well as for those instances where the methodology is correct but the documentation is inconsistent or imprecise. As current Chair Chuck Meyer suggests: "I am gratified that the Board has endorsed the technical editing project as a critical initiative. The first step in correcting the inconsistencies in our Version 3 documentation is identifying them. For too long we've complained about the situation without taking action. A comprehensive review will set the stage for corrective action."

Headed by Technical Advisor Charlie Mead (Booz, Allen, Hamilton), and overseen by an advisory committee consisting of Ioana Singureanu, Jim Case, Dick Harding,Virginia Lorenzi, Keith Boone and Savithri Devaraj, the Version 3 Editing contract was assigned to Ockham Information Services (Jay Lyle and Sarah Ryan, and consultants Abdul-Malik Shakir and Harold Solbrig). The charge of the contract is to work with the sponsoring committees in distinguishing those issues within the standard that are problems with the methodology itself versus those that are problems with the documentation. The focus of the editors is to edit; not to write new material, and they will work with the committees to detect issues and make suggestions for resolution.

Three areas were identified as starting points for the project: the core of the RIM, data types, and vocabulary. Ockham is reviewing each area in light of a user model and a documentation roadmap that the HL7 Board has endorsed. Each document (or portion thereof) needs to have an identified audience—or audiences. That audience may consist of many different types of people (e.g., programmers, business analysts, technical architects, administrators). By shaping the current documentation to address these identified consumers, the editors and committees can enhance the clarity of the communication to those consumers. Business sponsors and administrators will understand which documents will help them articulate the value of Version 3 without trying to read technical specifications, while methodologists and data designers will know which specifications underpin their work. While this may seem obvious, the current standard does not explicitly recognize these various audiences. By applying the user model and creating a document "roadmap," the project will help users understand the standard and increase its usability by suggesting targeted information. HL7 Board of Director Bob Dolin (Kaiser) offers a perspective suggested by Bertrand Russell: "Everything is vague to a degree you do not realize till you have tried to make it precise. The Version 3 editing project will enhance Version 3's precision."

The Editing Project is in its second phase, targeted for completion by the January Working Group Meeting. Work products are posted on the Mayo Informatics wiki (http://informatics.mayo.edu/wiki/index.php/V3_Technical_Editors_Project). All are invited to participate and contribute to the process. For more information or comments, please contact Charlie Mead (mead_charlie@bah.com), Jay Lyle (jay@lyle.net) or Sarah Ryan (ryansaraha1@earthlink.net). Comments can also be directed to the Version 3 Advisory Group.

Vocabulary Technical Committee

Call for Projects: January Working Group Meeting

Vocabulary Special Interest Topics

Call for Participants: Focus on Implementation

The HL7 Vocabulary Technical Committee is pleased to announce that the January Working Group Meeting will focus on implementation issues. We are looking for projects or groups that will present guides, profiles, or terminology services on Wednesday, Q2 and Q3, of the WGM meeting. These sessions will be in addition to the introductory and "Ask the Experts" seminars, which will be held Monday, Q1 and Q2.

Interested participants should submit a one-paragraph summary of their proposed presentation to Sarah Ryan, ryansaraha1@earthlink.net, by December 15. The submissions will be evaluated by the Vocabulary Technical Committee's leadership. Selected participants will be notified by December 20, 2007. Those selected will be featured in the next HL7 newsletter.

Message Conformance Testing using Messaging Workbench and Message Maker

By Syed M Abidi, Senior Analyst, Interfacing, University Health Network

Syed M Abidi

Standards-based messaging using HL7 standards is a key to achieving an interoperable healthcare environment. Healthcare facilities across the United States and Canada use the HL7 2.x standard to exchange information between various healthcare systems. The HL7 2.x standard is not a plug-n-play solution, and every implementation requires customization to accurately exchange information. Until there is a strong vendor and healthcare community support for HL7 Version 3 implementation, most healthcare facilities will continue to use the HL7 2.x standard as the standard of choice to exchange information. When a new system is introduced into a hospital, or a new project is initiated either across multi-facilities or within a specific unit, a key aspect involves information exchange. The objective normally is to re-use the information that has already been captured by another system. In order to ensure that these systems exchange information accurately, conformance testing is normally done. HL7 Messaging Workbench and HL7 Message Maker can assist an implementation team in quickly testing various use cases by generating test messages. These test messages can then be sent across to the system using HL7 Comm or any other commercially available HL7 tool to test messages.

There are various free tools currently available that can assist an implementation team in thoroughly testing the various parts of integration. Some of the tools are listed below:

HL7 Browser/HL7 Comm (http://www.nule.org)
HL7 Messaging Workbench
Message Maker (http://www.nist.gov/messagemaker/)

Messaging Workbench (MWB) is a tool used for creating a message profile. This tool allows you to customize fields and tables, per the specification of the desired message. Message Maker is used to generate test messages per the specification of a message profile. These messages can then be used to test the interface of the receiving system to ensure that the interface conforms to the messaging specifications. At most facilities, interface testing is a manual and cumbersome process. For each new integration project, these steps are repeated over and over again. During the manual testing process, it is very rare to test an interface using invalid data, and the focus remains on message structure conformance. Message Maker offers an option to add both valid and invalid test data for each and every field.

MWB comes with a complete library of various versions of HL7 and allows customization of the pre-built message profile. One of the key features of MWB is that it allows customization of datatypes and user-defined/HL7-defined tables. These tables, along with the message specification, can then be exported to an XML format. This exported file can then be imported into Message Maker to generate test messages. Once the test messages are generated, Message Maker allows you to further edit the data to fine tune a message. These test messages can then be saved to a file in both XML and ER7 format.

Step-by-Step Guide:

1. In MWB, start by selecting the Msg Structure: File ⇢ Change Structure List
2. Load the Msg Structure and select the appropriate msg: File ⇢ Load Msg Structure
3. Customize the Msg Structure as per the Message specification by editing the given Structure
4. Compile the message: Tools ⇢Compile Message
5. Now customize the message by modifying the element parameters as per your specs
6. Add or Edit the datatypes (if required): Maint⇢Datatypes ⇢ Add/Edit Datatype File
7. Add or Edit the user-defined/HL7-defined table: Maint⇢ Datatypes ⇢Add/Edit/Delete Table Elements
8. Once the msg profile is ready, then go to the Display/Reports tab and select the option Spec XML or Spec XML w/Tables from the drop down
9. Click the save button to save the output to a file
10. Start Message Maker. On the Initialization page, select the Profile you have generated using MWB
11. Go to the Data Configuration tab and select individual fields, components and sub-components, and enter both the valid and invalid test data
12. Once the test data is entered, then go back to the Initialization page and enter the number of messages to be generated by the tool
13. Generate the test messages: Messages ⇢ Generate and click Start
14. Go to Message View tab and expand the view to display the generated test messages

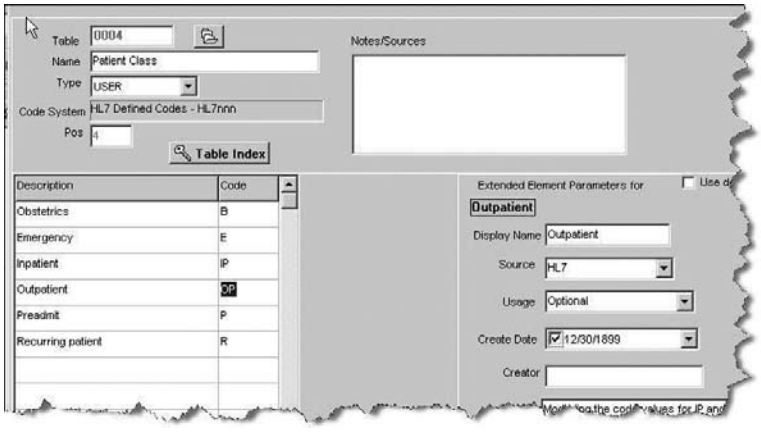


Figure1: Customizing tables in MWB

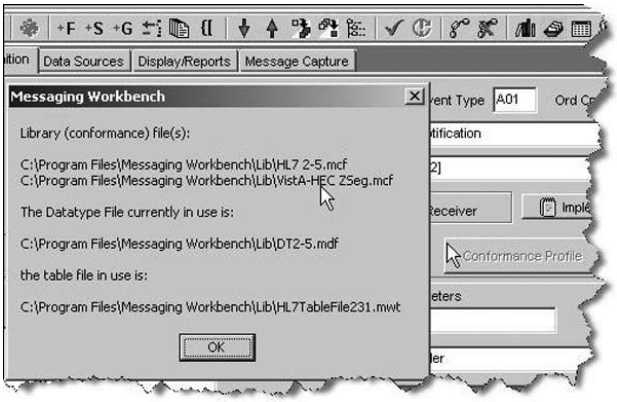


Figure 2: Confirming HL7 libraries in use for the current profile in MWB

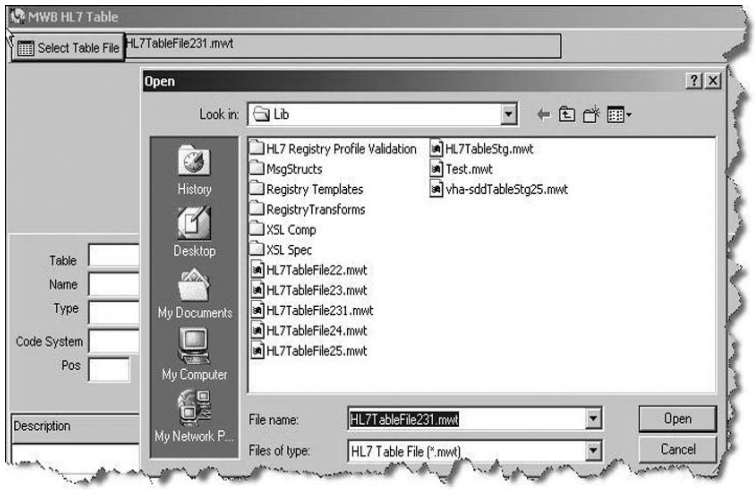


Figure 3: Selecting correct data files to customize in MWB

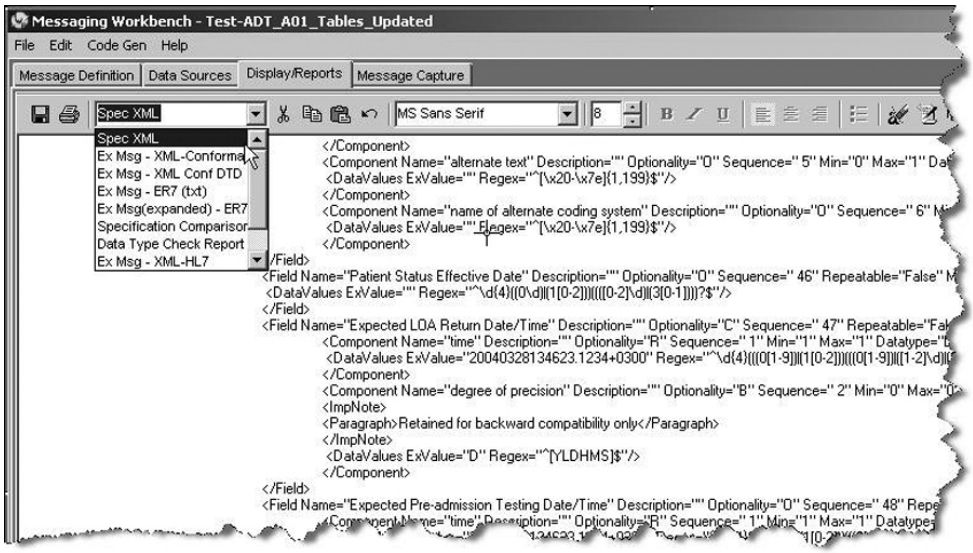


Figure 4: Exporting performance profile from MWB

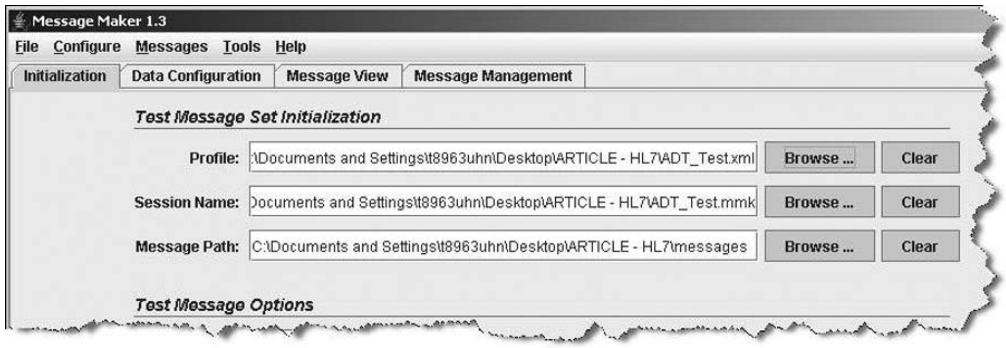


Figure 5: Importing MWB conformance profile into Message Maker

News from the PMO

By Dave Hamill, Director, HL7 Project Management Office

New Project Approval Process Unveiled

At the Atlanta Working Group Meeting, the PMO, in conjunction with the Transitional Technical Task Force (T3F), presented a new process for approving, triaging and prioritizing project requests. The purpose of the new approval process is to engage the Steering Divisions and TSC early in a project's life.

The new process is as follows:
Step 1: The Project Facilitator (i.e. the person leading/managing the project) completes a Project Scope Statement.

Step 2: The sponsoring Technical Committee reviews and approves the Project Scope Statement. The Project Facilitator resolves any issues brought forth during the review.

Step 3: The Project Facilitator sends the Project Scope Statement to their respective Steering Division as well as to the TSC. The Steering Division reviews the Project Scope Statement for criteria such as:

- Is the project within the scope of work done by HL7?
- Is the project within the scope of the sponsoring committee?
- Is the project related to other projects?
- Is the project related to activities of other committees?
- The Steering Division indicates the priority within the Steering Division, if necessary. Priority is based on resoures, target dates and technical strategies.

The Project Facilitator resolves any issues brought forth by the Steering Division. The Steering Division review results could be:

- An amended Project Scope Statement
- An order for additional review by another Steering Division, jointly or separately
- An order for Board approval if the project requires internal or external funding or collaboration with an external body

Step 4: The Project Facilitator submits the Project Scope Statement to the PMO. The PMO reviews the Scope Statement, insuring it adheres to the HL7 Project Scope Statement guidelines. The Project Facilitator resolves any issues brought forth during the review.

Step 5: The Steering Division submits the Project Scope Statement to the TSC for approval. The TSC review focuses on:

- Validating points identified by the Steering Division and PMO
- Assigning a TSC-level priority, if necessary

The Steering Division and TSC reviews replace the review formerly performed by the Architectural Review Board (ARB). However, the ARB still may be called upon to resolve any architectural issues.

Throughout the project, the PMO and the Project Services Committee will ensure that the project is adhering to HL7 project methodologies.

For more information regarding the new approval process, please contact Dave Hamill (dhamill@hl7.org), or TSC members Woody Beeler (woody@beelers.com) or Jim Case (jtcase@ucdavis.edu).

Piloting the New Project Scope Statement

The PMO has been working with the Project Lifecycle Transition Team to revise the Project Scope Statement so it supports HL7's project management tool, Project Insight, and transition changes resulting from the Strategic Initiatives recommendations. At first glance, the revised scope statement appears much lengthier (from two pages to four pages); however, the revisions include expanded directions and check boxes for some sections. The revised scope is watermarked "Closed Draft" while it is in the pilot phase. Feedback from the September Working Group Meeting has been included in v1.1 and has been uploaded to the Project Lifecycle Transition Team's Documents/Presentations web page under the Scope Statements Directory (www.hl7.org/special/committees/sipl/docs.cfm). If your committee is interested in piloting the revised scope statement, please contact Dave Hamill (dhamill@hl7.org). The revisions include the following:

Dave Hamill

Project Name, ID, and Products – This section was expanded to add check boxes for the associated HL7 product type for the project. The product line list was established by the Products and Services Task Force to help HL7 track our standards development and includes categories such as Version 2 Messages-Clinical, Version 3 Documents-Clinical, and Version 3 Messages-Clinical.

Sponsoring Groups – This section was expanded to identify not only the TC/SIG(s) supporting the project, but also the project team (for example, modeling, publishing, and vocabulary facilitators) and two representatives who agree to implement a DSTU prior to normative ballot. While this is a non-binding agreement, the intent is to focus on developing standards the healthcare industry plans to implement. Infrastructure type projects—for example, data types and wrappers—are not required to name implementers.

Project Objectives and Deliverables – the bulleted list of deliverables was revised.

Project Intent/Project Collaboration and Interested Parties – This section was split into two sections with check boxes added for Normative and Informative Standards, as well as "other" categories.

Project Approval Date – A new section to track approvals by the respective

Technical Committee, Steering Division, and the TSC.

Project Plan – A new section that includes general project planning information, such as project schedule, ballot strategy, or budget (if additional funding is required, or the project will be contracted).

Project Insight Presentations Will Continue at the January Working Group Meeting in San Antonio, TX

The PMO will again demonstrate Project Insight and provide tutorials to all interested parties at the San Antonio Working Group Meeting in January. Sessions are planned for Q4 Sunday and Q2 Thursday. This training will help project facilitators assist their committees in project development and facilitation by utilizing an online tool. Look for more details under the "Other Meetings" section in the WGM Brochure and in the On-Site Meeting Schedule and Hotel Guide. Project Insight is a 100% web-based project management software application with tools that offer many strategic benefits to HL7, such as:

- Intelligent project scheduling, including cross project dependency capability
- Flexible reporting
- Project templates and project methodologies
- Microsoft Outlook and Office integration
- Options for customization

Project Insight will be HL7's primary project repository. It will function as the foundation for project data and reporting, and will assist the PMO, TSC and ARB with executing HL7's project methodology and processes. The tool will be made available to each Technical Committee and Special Interest Group through their respective co-chairs.

A prime element of Project Insight is its ability to assist project teams in organizing project documents and providing a roadmap for them to follow. Templates have been created to ensure consistent use of folder hierarchies, project schedules, and project documents.

The initial project schedule template created by the PMO is based on the HL7 Project Lifecycle and has been built for a "standards project" whose goal is to be submitted for balloting. The schedule template is accompanied by a folder structure to house project deliverables, documents, issues, status reports, as well as to provide document templates and examples.

Upcoming Co-Chair Elections

The following HL7 Technical Committees and Special Interest Groups will conduct co-chair elections at the January Working Group Meeting in San Antonio, TX:

- Attachments SIG–electing two co-chairs
- Cardiology SIG–electing two co-chairs
- Clinical Context Object Workgroup TC–electing two co-chairs
- Clinical Genomics SIG–electing one co-chair
- Clinical Interoperability Council–electing one co-chair
- Community Based Health Services SIG–electing two co-chairs
- Electronic Health Records TC–electing two co-chairs
- Emergency Care SIG–electing two co-chairs
- Generation of Anesthesia Standards SIG–electing one co-chair
- Government Projects SIG–electing one co-chair
- Health Care Devices SIG–electing two co-chairs
- Infrastructure & Messaging TC–electing two co-chairs
- Java SIG–electing one co-chair
- Laboratory SIG–electing two co-chairs
- Patient Safety TC–electing one co-chair
- Pediatric Data Standards SIG–electing two co-chairs
- Public Health Emergency Response SIG–electing one co-chair
- Regulated Clinical Research Info Management TC–electing two co-chairs
- Security TC–electing two co-chairs
- Structured Documents TC–electing one co-chair
- Vocabulary TC–electing two co-chairs

2007 Ed Hammond Volunteer of the Year Awards

Hans Buitendijk

Hans Buitendijk has been a member of HL7 since December 1992, and Orders and Observations Technical Committee co-chair for more than 10 years. During this time, he has been a key player in the developing and updating of at least six versions of 2.x and numerous Version 3 updates. Buitendijk has been the editor, facilitator and project leader even before those roles were officially defined. He has mentored many co-chairs who now serve on committees across the organization that help HL7 achieve the many successes beyond the normal Orders and Observations Technical Committee workload.

Buitendijk most often works behind the scenes, like with the Strategic Initiative Task Force, helping to lead the strategic planning necessary to improve HL7. As a co-chair of the Organizational Review Committee, he has helped re-organize HL7. He works tirelessly to find ways to improve the organization, and continues in this role as an at-large member of the HL7 Board of Directors.

Jim Case

Jim Case is a founding co-chair of HL7's Public Health Emergency Response Special Interest Group and a member of the Transitional Technical Task Force, which is helping HL7 visualize and implement strategies to meet tomorrow's requirements. He joined HL7 in 1997 to make HL7 useful in veterinary medicine and he continues to ensure that HL7 specifications and documents support industries within and outside of human healthcare. Committees such as the Laboratory Special Interest Group and the Orders and Observations Technical Committee seek his expertise when critical requirements are pulled together to make sure the message can meet the broadest needs in healthcare. His consistent approach to key issues has helped accelerate many important HL7 initiatives. Case has also trained many HL7 members on the LOINC database (Logical Observation Identifiers Names and Codes) and he is considered one of the organization's authorities in this area.

Thomson Kuhn

Thomson Kuhn's work with HL7 has resulted in a successful model of engagement with the healthcare industry. Kuhn has demonstrated how to present the complex and detailed work of the standards development process to the medical community and integrate the concerns and values of the medical community into the standards development process. His strong and consistent participation in the detailed development of the Clinical Document Architecture (CDA) implementation guides and his success in communicating the substance of that work to the American College of Physicians has led to the ideal model of teamwork. Kuhn has been a member of HL7 since March of 2001 and has been a model volunteer focused on the essential value that HL7 brings to the community.

Ken McCaslin

Ken McCaslin joined HL7 in January of 1994 and has held several senior advisory roles within the organization. These roles include helping the Process Improvement Committee develop product lifecycle and project guidelines and participating in the Strategic Initiative Task Force to guide the development of HL7's vision and strategic plan. McCaslin also led the EHR-Laboratory Interoperability and Connectivity Specification (ELINCS) team that developed the proposals made to HL7 for the Clinical Laboratory Improvement Amendments (CLIA) that eventually became HL7 Version 2.5.1. In his current position as co-chair of the Laboratory Special Interest Group, McCaslin is responsible for leading the ongoing development of messages to enable electronic ordering of laboratory tests. He also serves as co-chair of the Electronic Services Committee where his leadership has kept the website re-design project coordinated and moving forward through significant committee membership and HL7 staff changes. McCaslin has also contributed his time and efforts to other groups within the healthcare IT industry, such as the ELINCS Technical Working Group and HITSP.

Amnon Shabo

Amnon Shabo is a founding member of the Clinical Genomics Special Interest Group as well as an editor of the Clinical Document Architecture (CDA) Release 2 and the Continuity of Care Document (CCD). A member of HL7 since 2001, Shabo has worked across committees to ensure harmonization of genomic data wherever applied. Shabo has published work on implementation of Version 3 documents and messages and has been an early implementer and developer. He is involved in international joint efforts on EHR information models, and his vision of patient-centric, interoperable health records informs his work. Shabo has made a substantial contribution to the quality and relevance of HL7 specifications. He has accomplished all of this while working from Israel, and he remains an active participant across oceans and time zones.

The Proposed Governance and Operations Manual Maintenance Process

By Chuck Meyer, Chair, Health Level Seven

Currently, the Policy and Procedure Manual (PPM) is maintained by the Bylaws and Policy Review Committee (BPR) in collaboration with the Process Improvement Committee (PIC). The BPR put forth changes and additions to the Board of Directors for adoption. Once ratified by the Board, the PPM is updated and posted to the HL7 website. The membership is notified that the PPM has been revised and posted via email.

With the advent of streamlined Bylaws and the movement from a PPM to the Governance and Operations Manual (GOM), it was deemed essential that the membership be able to participate in the definition of process and policy. In that vein, the BPR proposes a dynamic, proactive, iterative, and participatory process for maintenance of the GOM. As a component of that process, the BPR recommends that it be replaced by the Governance and Operations Committee (GOC).

The GOC, charged with maintaining the GOM, will be chaired by the HL7 Secretary and include the Associate Executive Director, the Chief Technology Officer, and other individuals selected by the Secretary from among the membership. The collaboration between the GOC and PIC in the GOM maintenance process will be even closer than for the PPM.

The GOM maintenance process has a number of process points defined for each Working Group Meeting (WGM), with the majority of the actual process occurring in the periods between the WGMs. The following graphic illustrates this activity.

A key component of this process is engaging the membership through a variety of channels:

- At each WGM, there will be a "suggestion box" on or near the registration desk to collect member's suggestions for changes or additions to the GOM.
- There will also be an open forum conducted at every WGM to 1) capture any input from the membership on current work items; 2) capture any input from the membership on future changes or additions to the GOM; and 3) address any questions about those revisions or additions adopted by the Board at that WGM.
- Between working group meetings, a list service will be open to accept recommendations for changes or additions to the GOM, and the membership will be asked to participate in peer review of the changes and additions recommended for adoption at the next WGM.

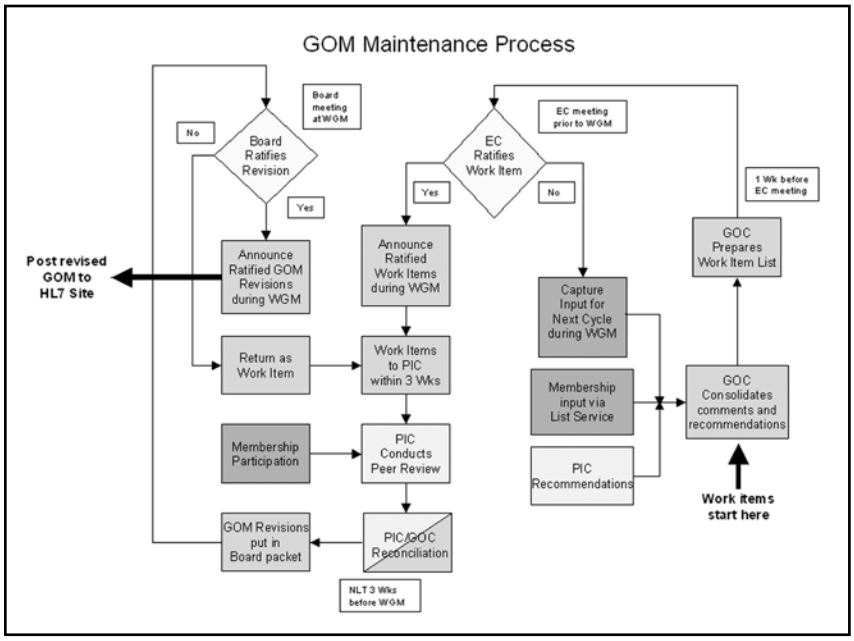
We are expecting significantly more input on the GOM from the membership than was sought for the PPM.

This iterative and proactive process will entail more work on the part of the GOC and PIC than was the case for the PPM. Immediately following the WGM, the GOC will consolidate the input from PIC and the suggestion box, open forum, and list service into the GOM work items list for ratification by the Executive Committee. Prior to the next WGM, during their regularly scheduled monthly meeting, the Executive Committee will consider each item on the work list and either approve it to be worked on or return it for more definition or rationale. The approved work item list will be announced during the WGM.

Once the work item list has been prepared for consideration by the Executive Committee, the GOC will address the approved work items coming out of the WGM by following this process:

1. The GOC will present the recommended changes resulting from the work items to the PIC.
2. The PIC will initiate peer review of the recommended changes or additions.
3. The PIC and the GOC will reconcile the outcome of the peer review and prepare the results for consideration by the Board during their face-to-face meeting at the WGM.
4. Those revisions adopted by the Board will be announced to the membership during the WGM; those not adopted are returned to the active work item list.

Those revisions approved by the Board will be incorporated into the GOM and the updated GOM will be posted to the HL7 website. This process is designed to allow HL7 to be current with best practices and mandates from external agencies such as ANSI. It is a dynamic, proactive, iterative, and participatory approach to documenting our policies and procedures with consideration for the concerns of our members.



Results of HL7 Board Elections

Congratulations to the following individuals recently elected to the 2008 HL7 Board of Directors:

Treasurer – Dan Russler, MD
Directors-at-Large – Hans Buitendijk and Linda Fischetti
Affiliate Director – Michael van Campen

Co-Chair Election Results from the September Working Group Meeting

Congratulations to the following individuals elected as co-chairs at the September Working Group Meeting in Atlanta:

- Arden Syntax – Robert Jenders and Matthew Sailors
- CCOW – Rob Seliger, Michael Russell
- Clinical Decision Support – Robert Greenes
- Emergency Care – Kevin Koonan and Jim McClay
- Imaging Integration – Fred Behlen
- Implementation/Conformance – Jennifer Puyenbroek
- Infrastructure & Messaging – Grahame Grieve and Jingdong Li
- Implementable Technology Specifications – Paul Knapp
- Laboratory – Craig Robinson
- Modeling & Methodology – Ioana Singureanu
- Pharmacy – Tom de Jong and Rob Hallowell
- Public Health & Emergency Response – Michelle Williamson
- Scheduling & Logistics – Anita Benson

HL7 Benefactors

accenture – High performance. Delivered.
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Thomson
U.S. Department of Defense Military Health System
Department of Veterans Affairs
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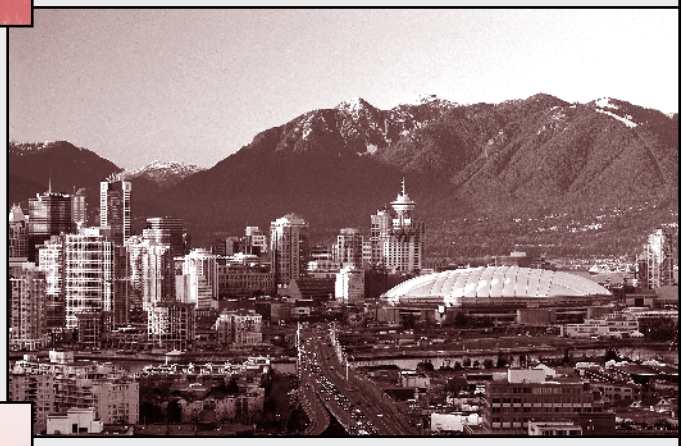
UPCOMING WORKING GROUP MEETINGS

May 4–9, 2008

May Working Group Meeting

Pointe Hilton at Squaw Peak Resort
Phoenix, AZ



September 14–19, 2008

22nd Annual Plenary & Working Group Meeting

Sheraton Wall Centre Hotel
Vancouver, BC, Canada

January 11–16, 2009

Working Group Meeting

Hilton in the Walt Disney World Resort
Orlando, FL

PLEASE BOOK YOUR ROOM AT THE HL7 MEETING HOTEL

HL7 urges all meeting attendees to secure their hotel reservations at the HL7 Working Group Meeting Host Hotel. In order to secure the required meeting space, HL7 has a contractual obligation to fill our sleeping room block. If you make reservations at a different hotel, HL7 risks falling short on our obligation and will incur additional costs in the form of penalties. Should this occur, HL7 will likely be forced to pass these costs on to our attendees through increased meeting registration fees.

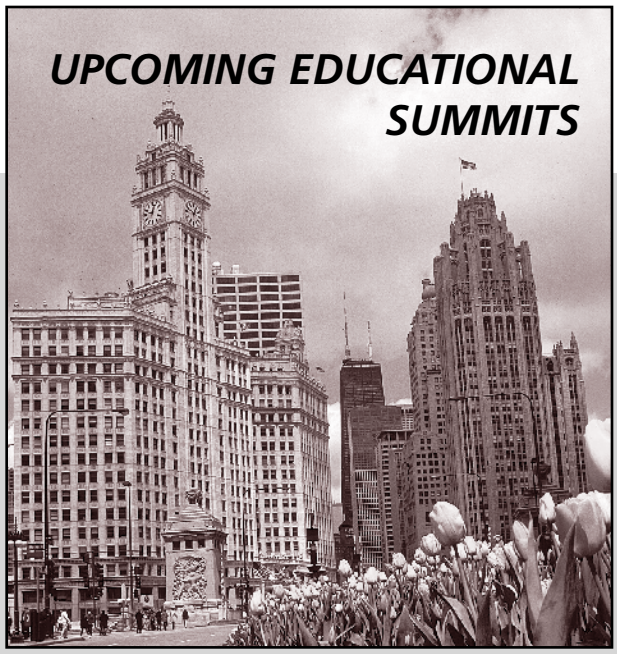
Thank you for your cooperation!

HL7 EDUCATIONAL SUMMITS

Gain real-world HL7 knowledge TODAY that you can apply TOMORROW

What is an Educational Summit?

The HL7 Educational Summit is a a three-day schedule of tutorials focused on HL7-specific topics such as Version 2, Version 3 and Clinical Document Architecture. Educational sessions also cover general interest industry topics such as HIPAA Claims Attachments.



March 4–6, 2008
Hilton Suites Chicago Magnificent Mile
Chicago, IL

July 29–31, 2008
Sheraton Inner Harbor Hotel
Baltimore, MD

November 4–6, 2008
Embassy Suites Hotel
Salt Lake City, UT

Why Should I Attend?

This is an invaluable educational opportunity for the healthcare IT community as it strives for greater interoperability among healthcare information systems. Our classes offer a wealth of information designed to benefit a wide range of HL7 users, from beginner to advanced.

Among the benefits of attending the HL7 Educational Summit are:

- **Efficiency**
  Concentrated three-day format provides maximum training with minimal time investment
- **Learn Today, Apply Tomorrow**
  A focused curriculum featuring real-world HL7 knowledge that you can apply immediately
- **Quality Education**
  High-quality training in a "small classroom" setting promotes more one-on-one learning
- **Superior Instructors**
  You'll get HL7 training straight from the source: Our instructors. They are not only HL7 experts; they are the people who help produce the HL7 standards
- **Certification Testing**
  Become HL7 Certified: HL7 is the sole source for HL7 certification testing, now offering testing on Version 2.5 and Clinical Document Architecture
- **Economical**
  A more economical alternative for companies who want the benefits of HL7's on-site training but have fewer employees to train

Introduction to Change Control Using HL7 Project Homebase

By Ioana Singureanu, Modeling and Methodology Co-Chair; Application Architect, Department of Veterans Affairs

The purpose of this article is to introduce the options available to HL7 members to automate issue tracking and change control in order to provide better quality standards. HL7 provides to its members an integrated web portal that supports change control, task management, surveys, release management, document management, and source control in an integrated, web-based tool named HL7 Project Homebase. As the name indicates, the portal can be used as the home page for HL7 projects and committees in a way similar to Sourceforge.net, one of the most successful open-source project hosting portals.

HL7 Project Homebase (hl7projects.hl7.nscee.edu/) is a web portal based on the GForge (www.gforge.org) that can host the artifacts of an HL7 project including the mechanism to manage the changes to those artifacts. The benefits of the Homebase portal is that it seamlessly integrates issue tracking and task management with version control and release management, thus supporting all the phases of an HL7 standard development project.

Change Control Process (CCP) Fundamentals

Change Control is the process that is to be used for requesting and managing changes to work products created or maintained by the members of HL7. This process will facilitate communication about requested changes among the stakeholders of HL7, provide a common process for resolving requested changes and reported problems, and reduce the uncertainty around the existence, state, and outcome of a change that has been requested in a work product.

A change is "an event that results in a new status of one or more configuration items (CI's)" approved by management, is cost effective, and enhances business process changes (fixes) with a minimum risk to IT infrastructure.

The main goals of Change Management are:

1. Minimal disruption
2. Reduction in back-out activities
3. Economic and efficient utilization of resources involved in the change

Change Control is a formal process used to ensure that a product, service or process is only modified in line with the identified necessary change. It is part of the lifecycle. It is particularly important in software development, as it was found early on that many changes were introduced to software that had no obvious requirement other than the whim of the software writer. Quite often these unnecessary changes introduced defects (bugs). Later it became a fundamental process in quality control. A change "freeze point" was introduced to suspend any further changes until after the completion of the initial project. Change Control is also formally used where the impact of a change could have severe risk and/or financial consequence.

Typical examples from the computer and network environments are the upgrading of operating systems, network routing tables, or the electrical power systems supporting such infrastructure, not forgetting changes to the contract itself.

Ioana Singureanu

Change Control Process

The following describes a simple change control process supported by HL7 GForge, the underlying implementation of the HL7 Project Homebase. The actual process may be more complex or simpler, but this is a typical, comprehensive process that takes advantage of the existing tools to automate the steps and ensure that the process is executed correctly.

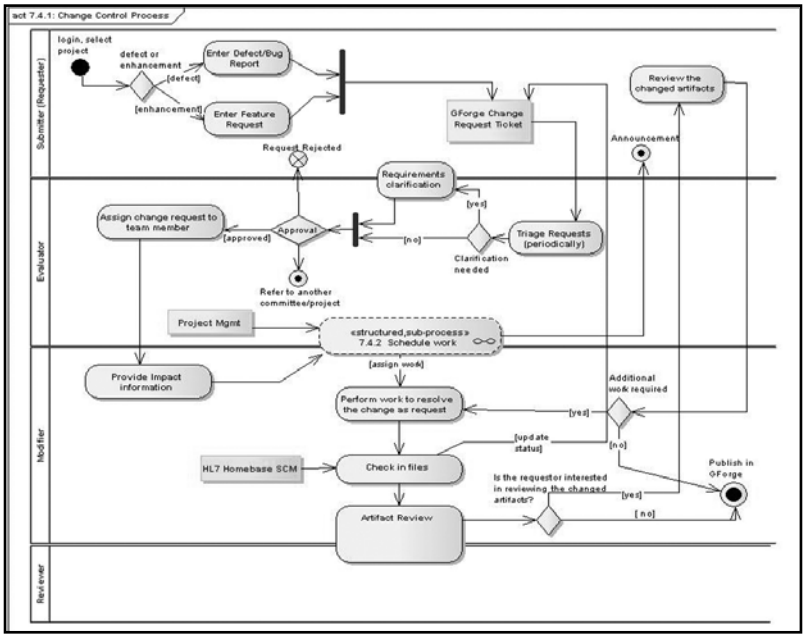


Figure 1: Change Control Process

The process above is automated by Gforge such that the issues can be tracked across the entire process. The state of an issue is updated during specific points of this process.

For a detailed, step-by-step document, plus a list of additional references, refer to the "Change Control Using HL7 Project Home Base" available online at http://hl7projects.hl7.nscee.edu/docman/view.php/44/38/ChangeControl-NewsletterArticle.doc

Training

HL7 provides free training classes that introduce the change control process, project management, and associated toll during the HL7 working group meetings (the next training session will be available in January 2008).

ORC Recommendations Set in Motion:
Newly Reorganized HL7 Anticipates Benefits

By Hans J. Buitendijk, HL7 Board Member; Chair, Organizational Review Committee; Product Manager, Siemens Medical Solutions USA, Inc.

During the September 2004 Working Group Meeting in Atlanta, HL7 Chair Mark Shafarman initiated the Organizational Review Committee (ORC) to analyze a number of issues that had started to come up relative to the organizational performance of HL7, and to provide recommendations on how to address these issues.

Mark Shafarman (co-chair), Hans Buitendijk (co-chair), Jane Curry, Freida Hall, Dick Harding, Kai U. Heitmann, Virginia Lorenzi, David Markwell, Charlie Mead, Helen Stevens Love, and Gavin Tong, later joined by Ken Rubin and Grant Gillis, embarked on a 12-month discovery process to identify key issues and recommendations that were presented to the membership and the Board. Key conclusions and recommendations included:

1. Develop business plan
2. Develop/execute communication plan
3. Enhance organization to support function model
4. Enhance project management
5. Develop education curriculum
6. Establish an enterprise architecture
7. Address ballot fatigue

As a direct result of the recommendations that ORC provided, and with funding from the Robert Wood Johnson Foundation, the Strategic Initiative Task Force (SITF) was formed to develop concrete implementation plans for a number of these topics. This was further continued with the Transition Teams to drive specific implementations. During the 2007 September Working Group Meeting, the various teams concluded their work and the new organizational structure for HL7 Technical Committees and SIGs was put in place while the Board started to transition to a new composition.

Hans Buitendijk

At the September Board Meeting, given the progress made and results achieved to date, the ORC asked the Board to disband the ORC as its primary goals had been achieved. While the HL7 organization is still facing many challenges, execution against the key recommendations that the ORC set forth is well on its way and we hope that this will continue to show the benefits that were anticipated.

We want to thank all the members who have provided input and insight during this process to get this started, and we look forward to reaping the benefits we envisioned from the onset.

Results of TSC Elections

During the summer months, the HL7 membership, via its steering divisions and affiliate voters, elected primary and alternate representatives to serve on the newly vamped Technical Steering Committee. Election to the TSC is for a two-year renewable term. To ensure continuity of leadership during its start-up phase, the TSC drew straws at its first official meeting to determine which two of the four steering divisions and which of the two affiliate representatives would serve a one-year renewable term. Thereafter, the terms for the TSC members will be two years. The results of the elections are as follows:

- Domain Experts Steering Division – elected Jim Case as the primary representative and Austin Kreisler as the alternate. These representatives will serve a one-year renewable term on the TSC.
- Foundation & Technology Steering Division – elected Ioana Singureanu as the primary representative and Woody Beeler as the alternate. These representatives will serve a two-year, renewable term on the TSC.
- Structure & Semantic Design Steering Division – elected Calvin Beebe as the primary representative and Gregg Seppala as the alternate. These representatives will serve a one-year term.
- Technical & Support Services Steering Division – elected Ken McCaslin as the primary representative and Helen Stevens Love as the alternate. These representatives will serve a two-year term.
- Affiliate Members – elected Charlie McCay as the primary representative and Frank Oemig as the alternate. McCay will serve a two-year term, while Oemig will serve for one year.

The International Column

By Kai U. Heitmann, MD, International Representative to the HL7 Board of Directors

Kai Heitmann, MD

Successful International HL7 Interoperability Conference (IHIC) in Auckland

After Dresden (Germany), Reading (United Kingdom), Melbourne (Australia), Daegu (Korea), Acapulco (Mexico), Taipei (Taiwan), and Cologne (Germany) last year, the eighth International HL7 Interoperability Conference (IHIC) was organized by our HL7 New Zealand colleagues and took place August 31 and September 1 in Auckland (New Zealand).

This year, IHIC brought international leaders together again, along with interested parties from all over the world, regarding HL7 Version 3 development and implementations. About 100 participants could be counted, mainly from the Asia-Pacific region, but also from the United States and Europe.

It is typical for this kind of conference to exchange experiences with implementations. Countries like Great Britain, Canada, and The Netherlands have invested remarkable resources into the development and implementation of the HL7 Version 3 standard. Many nations, including the Asia-Pacific region, have extended experience with implementing the Clinical Document Architecture (CDA).

Auckland's Sky Tower at Sky City

The focus of this conference was again the HL7 Version 3 messaging standard and the Clinical Document Architecture. The main motto of the meeting, "Working Together: How Will HL7 Version 3.0 Contribute to Achieving Efficient Integrated Care," indicated that everything was about interoperability and its "ingredients."

The main session on the first day was opened in the traditional way of the Maori, the native inhabitants of New Zealand. After that, Ken Lunn (United Kingdom) from the National Health Service (NHS) spoke about "Care Record Summary & Entries." He was followed by the Canadian presentation "Canadian Version 3 Experiences: ePrescription, Claims & Disease Management," given by Marc Koehn (Canada), and the Dutch contribution about HL7-Version 3 messages in the perinatology domain. William Goossen (The Netherlands) was prevented from coming at the last minute, so Kai Heitmann took over his presentation. Bernd Blobel (Germany) concluded the first main session on day one with "HL7 Version 3 Mission and Strategy in Relation to International Standards and Methodologies for Semantic Interoperability."

The main speakers on the second day were Dan Russler (United States) with his presentation "HL7 Version 3 and Services Oriented Architecture," Bob Dolin (United States) with "Clinical Document Architecture & Continuity of Care Documen (CCD) Specification & Implementation" and Charles Parisot (France) with "IHE - XDS and Services Profiles." The morning of the second day was concluded with Sam Heard (Australia) presenting "Implementation of Archetypes in Version 3."

During two panel discussions, HL7 experts expressed their opinions about interoperability— where we are now and where we are headed. The first panel on August 31 was entitled "The Building Blocks of Interoperability" and examined CDA and archetypes, IHE solutions and aspects of terminology. The second panel on September 1 entitled "Data Interchange between Patient Records and Shared Electronic Health Records: Strategies and Measurement of Success" discussed the electronic health records and prerequisites. On August 30, a SNOMED workshop was held in addition to the core conference program.

To summarize, the presentations were about success, problems, lessons learned and strategies. Materials of the conference, including an audio recording of both panel discussions, can be downloaded at http://www.hl7.org.nz/content/view/61/53/.

Thanks again to our New Zealand colleagues for making this event happen. The next IHIC is planned in Greece on the island of Crete, October 9 and 10, 2008. Please mark your calendars.

HL7 Germany Has a New Chair

After elections in Germany at the end of October this year, Thomas Norgall became chair of HL7 Germany. Kai Heitmann will serve two years as the past chair, while Bernd Blobel is the chair-elect.

HL7 Germany has a rotating chair position that allows two-year terms without re-election and a six-year presence in the Board of Directors in Germany. In addition, the treasurer and secretary positions, as well as three directors-at-large positions, were elected.

New Affiliate: HL7 Colombia

I am happy to report that HL7 Colombia is the newest affiliate on our list. The petition from our colleagues in South America was accepted in September.

New Affiliate Director of the HL7 Board

I am pleased to report that we have elected a second Affiliate Director to the HL7 Board as part of the Board transition. Our second representative is Michael van Campen from HL7 Canada. Michael has been a strong supporter of HL7 in Canada and abroad for the past 12 years. He has developed message materials for Version 3 claims, pharmacy and public health surveillance. He was recently re-elected HL7 Canada Head of Delegation, which translates to Affiliate Chair for HL7 Canada.

Michael van Campen

Both Michael and I will be meeting over the coming months to review how we can best serve the HL7 affiliates. If you have any ideas, please do not hesitate to contact myself (Kai Heitmann - hl7@kheitmann.nl) or Michael van Campen (Michael.vancampen@gpinformatics.com).

Please join me in welcoming Michael to the HL7 Board!

International Calendar

January Working Group
January 13–18, 2008, San Antonio, TX, USA

International HL7 Interoperability Conference (IHIC)
October 9–10, 2008, on the island of Crete, Greece

Please also visit the websites of our affiliates for other national events.

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Integrating HL7 Messages to a Data Model

By Maxime Morneau and Daniel Pascot
Département des systèmes d'information organisationnels Université Laval, Québec (Québec), G1R 1J4, Canada
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Introduction

Recently, integrating HL7 messages has become a major challenge for health IT projects across Quebec. The understanding of HL7 Version 3 varies greatly depending on every individual, and its use is evolving into a significant requirement. In a very short lapse of time, different health IT actors need to be introduced to a whole new terminology.

HL7 contains a vocabulary that is very distinct from what is used in healthcare in Quebec. Moreover, a bridge needs to be made between English and French terms.

Our research group working at the Ministry of Health and Social Services of Quebec (MSSS) elaborated a method for the integration of HL7 messages based on data modeling that can be used at the initial design stage.

HL7 messages integration

The information architecture currently used by the MSSS allows us to cover most of our needs in terms of data modeling. Despite this, a major leap forward had to be made to integrate HL7 Version 3 in our different health systems. The MCCD [2], our global detailed information model, is a model that reflects reality as close as possible. Using the terminology coming from the MCCD can help the integration of HL7 messages into our systems. For this purpose, we developed an original approach that allows us to model an HL7 message, both conceptually and logically.

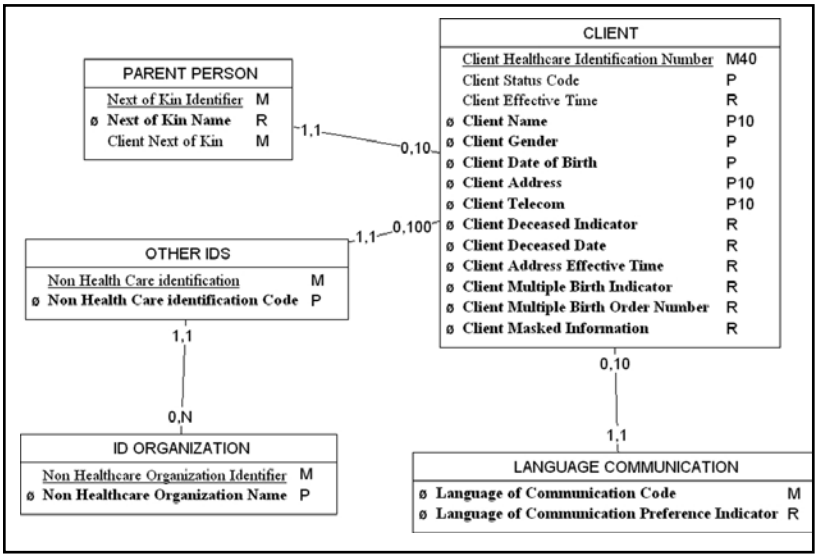

Figure 1. Logicial view of the Revise Client message.

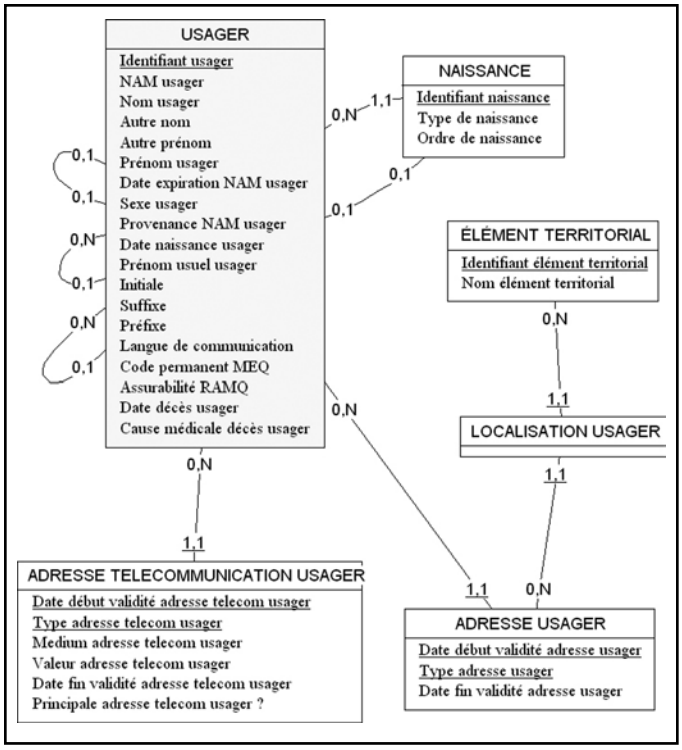

Figure 2. Conceptual view of the Revise Client message.

The first step is building what we call a "logical view" of an HL7 message based on the business view of the message provided by Canada Health Infoway. A logical view is a data model that represents an HL7 message content and its technical details.Please see Figure 1 for the logical view of the message.

The conformance of every attribute is indicated by a letter (Mandatory, Populated, Required, Optional) and the repetitions by a number (1 by default). This visual representation can greatly improve the understanding of an HL7 message for someone unfamiliar with HL7 Version 3.

To be able to map HL7 terminology to the Quebec healthcare reality, we need to build its conceptual view using the terminology we incorporated over the years in the MCCD. This vocabulary remains as close as possible to terms clinicians use in their daily work. The conceptual view of the message contains every element from the HL7 message. Please see Figure 2 for the conceptual model of the Revise Client message.

continued on next page

We may not have a one-to-one equivalent of every single entity or attribute in the HL7 message; a "mapping" process has to be done between the logical model and the conceptual one. For example, Parent, Person and *Client* entities are both found in the *Usager* (User) entity in the MCCD as can be seen in Figure 3:

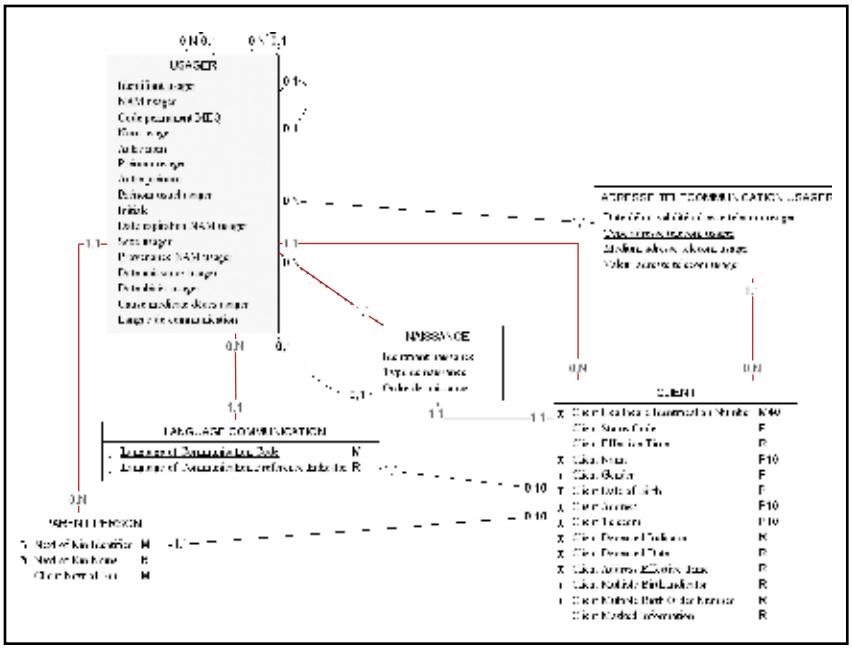

Figure 3. Mapping of the Revise Client message.

This figure only shows a partial view of the mapping. Every entity and attribute from the logical model is mapped to its corresponding entity or attribute in the conceptual model (red line). The Client entity is mapped to both the *Usager* (User) and the *Naissance* (Birth) entity. Derived attributes are indicated by the (f) sign.

Conclusion

We provide a visual and intuitive way to represent HL7 messages while staying coherent with the healthcare context of Quebec. Our approach could be easily applied to other jurisdictions as well, since our data model focuses on healthcare events, rather than heathcare systems. This method can facilitate the adoption of HL7 in Quebec while maintaining a high degree of coherence between our health information systems.

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Following engineering and business administration studies, Daniel Pascot obtained a PhD in 1975 in decision support systems. He worked until 1978 with the team from Aix-en-Provence who created the Merise method. Living in Quebec since 1978, he is a professor at the Information Systems Department of Laval University where he teaches and does research on data modeling. He is currently the head of the Information Systems Department and works on many applied research projects, especially developing the information architecture of the Ministry of Health and Social Services of Quebec.

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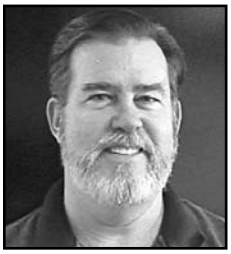

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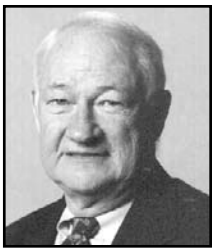

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Health Level Seven, Inc.®

January Working Group Meeting

January 13–18, 2008

at The Hyatt Regency San Antonio on the Riverwalk

Early Bird Registration Cutoff—December 14, 2007
Online Registration & Hotel Cutoff—December 21, 2007