HL7 Ballots
Voting Made Easy

Presented by Ed Tripp
Revision Date: August 24, 2009
Introduction

- This presentation will cover the HL7 ballot process and how to participate in the balloting.
- At the end of this presentation you should be able to:
  1. Understand the types of ballots
  2. Access and navigate the ballot website
  3. Access and navigate the ballot material
  4. Submit your comments on a ballot package
Training Outline

- **Section 1: Understanding the HL7 Ballot Types**
  - In this section you will learn about the four types of ballots that you may participate in.

- **Section 2: The Ballot Desktop**
  - In this section you will learn how to navigate the ballot desktop and join in a ballot pool

- **Section 3: Ballot Materials**
  - In this section you will learn how to locate the desired ballot material and navigate through it.

- **Section 4: Voting**
  - In this section you will learn how to cast a vote and upload comments.
Section 1: Understanding the HL7 Ballot Types

Objectives

- Understand what types of material are balloted.
- Understand what types of ballots exist and the differences
Section 1: Understanding HL7 Ballot Types

- Work Groups in HL7 manage projects that produce products (standards materials)
- Before balloting, you should determine the product you will be reviewing
- The project scope statement describes the type of material that is being developed for the project.
- The Project Name, ID and Products section will tell you what product(s) are being developed.
Finding the Project Scope Statement

- To find a project scope statement, navigate to the HL7 website at www.hl7.org
- Open Tools and Resources
- Click on Search Current Projects from Project Insight
Search Project Insight

- The link takes you to the Project Insight Search page.
- You can search projects by:
  - Keyword - word or phrase associated with the project
  - Sponsor (Work Group) – Workgroup owning the project
  - Product Type – List on slide 10
  - Project Number – assigned from Project Management Office
  - Project Type – Ballot level or contract work
Find the Project Summary

- Once you have performed a search click on the **project name** to pull up the project summary page.
Project Summary

Scrolling through the project summary, you can find the product and project type. This information will be useful in accessing the ballot material.

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Ballot - Normative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Type</td>
<td>V3 Messages-Clinical</td>
</tr>
</tbody>
</table>

- 1. Utilize the PGRIM BRIDG model in the analysis process and extend, as needed, to meet trial registry and result database requirements
- 2. Develop an initial standard to meet the requirements of trial registration and basic results reporting
- 3. Extend the initial standard to meet the requirements of expanded results reporting
- 4. Establish a roadmap for evolving the standard into an ISO-approved, global exchange standard

**Objectives / Deliverables**

- Project Definition and Approvals
- Project Kick-off
- Draft Standard for Trial Use Ballot
- Pilot DSTU

**Timeline**

- December 2008
- January 2009
- April 2009
- May 2009 to TBD
Types of Products

- Arden Syntax
- Clinical Context Object Workgroup (CCOW)
- Domain Analysis Model (DAM)
- Electronic Health Record (EHR)
- V2 Messages
  - Administrative
  - Clinical
  - Departmental
  - Infrastructure

- V3 Documents
  - Administrative (e.g. SPL)
  - Clinical (e.g. CDA)
  - Knowledge
- V3 Foundation
  - RIM
  - Vocab Domains & Value Sets
- V3 Messages
  - Administrative
  - Clinical
  - Departmental
  - Infrastructure
- V3 Rules – GELLO
- V3 Services
  - Java Services (ITS Work Group)
  - Web Services

V3 messages ballot materials are located at the V3 Ballot site or can be downloaded where other material is usually downloaded as a stand alone package.
Types of Ballots

- There are four basic types of ballots
  - N – Normative
  - I – Informative
  - D – Draft Standard for Trial Use
  - O – Comment

- The following slides will define each of these ballot types.

Note: Letter designations are used at the ballot sight to indicate ballot level.
Normative

- A normative ballot is intended to process and validate those specifications intended for submission to ANSI for consideration as American National Standards.
- The normative ballot process shall adhere to the tenets of ANSI Essential Requirements: Due process requirements for American National Standards.
- Under normal circumstances the subject matter of a normative ballot will have at some point been subjected to a review ballot; however, there are a number of scenarios where material may need to move directly to normative ballot, such as the need to respond to government mandate or to resolve a critical issue raised by a stakeholder or noted in an existing American National Standard.
Participation in Normative Ballot

- An initial normative ballot shall be open to all interested and materially affected parties; however, quorum shall be defined relative to the number of HL7 members in the ballot pool.
  - HL7 shall assess an administrative fee for the processing, handling, and shipping of the ballot package for nonmembers.
  - Members can join the ballot pool up to two weeks from the close of the ballot.
  - Quorum for balloting consists of 60% of the HL7 members in the ballot pool. Non members are not counted in establishment of quorum.
- Those registrants who do not return a ballot shall not be included in the consensus group and shall not participate in any subsequent normative ballot of the same content.
Normative Ballot Approval

- A 75% affirmative response of the combined affirmative and negative votes cast shall be required for approval with not less than 60% of the ballot pool returning ballots and representative of at least 60% of the HL7 members participating in the ballot pool.
- All statements accompanying affirmative ballots shall be considered by the appropriate Work Group.
- Statements accompanying negative ballots should be submitted as an attachment to the ballot and clearly reference the particular ballot item(s) to which it pertains.
  - Negative ballots not accompanied by comments shall not be considered.
- A comment resulting in a substantive change shall necessitate a subsequent normative ballot of the same content.
  - Substantive change is any change that alters the information content of a message, the circumstances under which it would be sent, or the interpretation of its content.
Informative

- An Informative Document is the product of a Work Group that is not currently deemed normative, but nonetheless is intended for general publication. It explains or supports the structure of the specifications, or provides detailed information regarding the interpretation or implementation of an HL7 Specification.

- A Work Group may declare an informative document as US Realm-specific in that its function is to constrain a specification for implementation in the United States of America (USA).
Participation in Informative Ballot

- Members shall indicate their interest by enrolling in the review group via the HL7 Ballot Desktop during the enrollment period which shall end one week prior to the ballot closing date.

- For US Realm Specific material, the Work Group may request that the review group be restricted to current individual members or representatives of current organizational members whose primary address or place of business is in the USA.

- There is no quorum required for an informative document.
Informative Ballot Approval

- The informative document shall be considered approved if, following ballot review, sixty percent (60%) of the combined affirmative and negative votes cast are affirmative.

- At the close of the ballot the responsible Work Group shall consider all comments with the intent of improving the quality and clarity of the informative document. While not on a par with a normative reconciliation package, the results of the Work Group’s consideration of the comments submitted shall be posted to the Ballot Desktop.
Draft Standard for Trial Use (DSTU)

- DSTU is used to provide the basis for proof of concept pilot projects and objective assessment of the viability of implementation of the proposed standard.
Participation in DSTU Ballot

- Members shall indicate their interest by enrolling in the review group via the HL7 Ballot Desktop during the enrollment period which shall end one week prior to the ballot closing date.
- The minimum review group shall be ten current individual members or individuals representing at least three current organizational members.
- Reviewers are encouraged to provide constructive comments for improving the content or language of the subject matter under review.
DSTU Ballot Approval

• The proposed draft standard shall be considered approved if sixty percent (60%) of the combined affirmative and negative votes cast by the review group are affirmative.
• Upon approval the proposed draft standard, shall be released for publication as a DSTU for a period up to two years.
• At the close of the review ballot the responsible Work Group shall consider all comments with the intent of improving the quality and clarity of the proposed draft standard. While not on a par with a normative reconciliation package, the results of the Work Group’s consideration of the comments submitted shall be posted to the Ballot Desktop.
A Work Group may submit proposed content or requirements documents, such as a Domain Analysis Model (DAM), to comment-only review. The intent is to gather input from members outside of the Work Group on the viability and clarity of the proposed content or requirements document. The review of proposed content or requirements documents does not seek a vote, per se, but will capture all comments.

A ballot to reaffirm an HL7 American National Standard (ANS) shall be submitted to a Comment-only Ballot to allow interested parties to express their opinion by supporting reaffirmation, suggesting revisions to update the ANS, or providing reasons to withdraw the ANS.
Participation in For Comment Ballot

- Members shall indicate their interest by enrolling in the review group via the HL7 Ballot Desktop during the enrollment period which shall end one week prior to the review closing date.
- Nonmembers who wish to be part of the comment-only review group may do so at no cost, but must register their intent with HL7 Headquarters during the stated enrollment period by mail, telephone, or email.
- There is no minimum review group.
- At the close of the comment-only review period the responsible Work Group shall consider all comments with the intent of improving the quality and clarity of the submitted content before submission to a subsequent ballot.
- The Work Group shall post the results of their consideration of the comments submitted to the HL7 Ballot Desktop.
Section 1: Wrap-up

- There are over twenty (20) product types in HL7.
  - Those voting should understand the product type that is being balloted.
  - Product type is found in Project Insight
  - Ballot materials will either be found on the V3 ballot website or presented for download.

- There are four types of ballots
  - Normative
  - Informative
  - DSTU
  - Comment
## Ballot Type Summary

<table>
<thead>
<tr>
<th></th>
<th>Quorum</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normative</td>
<td>60% HL7 Members</td>
<td>75%</td>
</tr>
<tr>
<td>Informative</td>
<td>N/A</td>
<td>60%</td>
</tr>
<tr>
<td>DSTU</td>
<td>10 HL7 Members</td>
<td>60%</td>
</tr>
<tr>
<td>Comment</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Section 2: The Ballot Desktop

http://www.hl7.org/ctl.cfm?action=ballots.home

- Objectives
  - Learn how to join in a ballot pool
  - Learn how to navigate the ballot desktop
Locating the Ballot Desktop

- The link below will take you directly to the Ballot Desktop
  
  http://www.hl7.org/ctl.cfm?action=ballots.home

- You can also get there from the HL7 Home Page. Find the link to **Online Balloting** and follow the links to the Ballot Desktop.
Section 2: Desktop Home Page

Welcome to HL7

Welcome to the new HL7 Web Site. Currently this site is in Beta Development with the exception of the on-line Ballot. Now that the framework for the new site is in place we will be adding features and functions throughout the coming year. We would like to bring your attention to a few noteworthy features and functions.

Old vs. New
First and foremost, the old web site is still up and running so don't be afraid to use it. Currently, only balloting has moved and will no longer be updated in the old site. We'll keep you updated on the home page until we have a majority of the old site moved so check back here often for the time being. As always, if you have any problems with the site, feel free to contact the Webmaster. Here at HL7 Headquarters we are working hard to build a better environment in which to support the collaboration needed for the hard working groups of participants and volunteer to inform, educate and produce the high quality standards that we have all come to expect from HL7.

Security
The foundation for security in new HL7 site is driven by a completely different mechanism so it is required that you login. Basic information about you and your login are saved to your desktop in the form of a cookie. The information it stores is cryptic being a series of numbers and nothing more and it is that information that will recognize you on subsequent visits. The Member Login link is always present at the top of the website so if you encounter any

• When you link to the ballot desktop members should log in at the home page using your HL7 User ID and Password.
Navigate to the Ballot Page

- Click on the **Ballots** Tab to navigate to the Ballots Page.
- Then from the list of ballot cycles on the left, click on the **current ballot cycle** (the top link)
Join the Ballot Pools

- Click on the **Join a Pool** link to select the ballots you wish to participate in.
- On the Join a Pool Page, Select from the list of all open ballots
Ballot Pools Display

- After selection of ballot pools, the desktop will display ballot pools in which you are participating.
- It is a good idea to join ballot pools near the time they open so that when it is time to cast a ballot they are all listed at the top of the page.
Ballot Pools Display

- The desktop displays the following
  - Name of the ballot (displayed is HL7 Version 3 Standard: Common Product Model CMETs, Release 9)
  - Level of Ballot (displayed is D2: DSTU second ballot)
  - Ballot Document (this is either a ballot package for download or a link)
  - Open and close dates
  - Your vote
  - Comments (consolidated comments after a ballot has closed)
• The **Vote** tab at the top of the page takes you to a listing of those ballots you are participating in. This where you will submit your vote and comments.
The **Tally** tab displays the ballot level and voting tallies for Affirmative, Negative, Abstentions, No Vote, Total Pool, Quorum and Number of Affirmatives required for approval.
Clicking on the name of the ballot takes you to the ballot tally details for that ballot. At the top of the page a summary table displays.
Ballot Desktop Tally Tab

- Scroll down the page and you will find listings for each members vote.
- Member in the pool has a Vote recorded as Affirmative, Negative, Abstain, or No Return. Negative votes are highlighted in red to make them easy to locate.
- The Comment (Cmnt?) field that indicates if any text based comments were made when the ballot was submitted for this specification.
- The Upload (Upld?) fields indicates if there was a ballot spreadsheet uploaded. Note: The ballot spreadsheet will be covered in section 4 of this material.
- # of Evnts = Number of times a negative voter has been contacted for withdrawal purposes
Section 2: Wrap-up

- The ballot desktop is located at: http://www.hl7.org/ctl.cfm?action=ballots.home
- The ballot desktop is the central site where you can
  - Join ballot pools
  - Locate Ballot material
  - Cast a vote
  - Examine voting tallies
  - Examine comments from voters
- The tabs at the top of the page allow you to navigate between the Home Page, Voting Page and Tally Page
Section 3: Understanding the HL7 Ballot Materials

- Objectives
  - Learn how to locate the desired ballot material
  - Learn how to navigate the ballot material.
Where are the Materials?

http://www.hl7.org/ctl.cfm?action=ballots.home

The downloadable materials have the documents or material for consideration, so we will next learn about the ballot website.
The Ballot Site

Special List Service

- To keep you continually apprised of any updates or patches to the ballot site, HL7 instituted a special list service to which you may subscribe.
- You can only sign up through the ballot web page by clicking on the link presented.
- On the linked page, you will need to sign-in (if you have a list service ID, or create one if you do not):
  - go to the Publishing header
  - select the v3ballotupdates list
  - Only HL7 staff are permitted to post messages to this list
The V3 Ballot Site

The page is divided into 3 frames.
On the upper left hand side is the navigation pane or backbone.
At the bottom left is the legend
On the right hand side is the content
# The Legend

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Image" alt="Yellow Icon" /></td>
<td>Yellow identifies an informative document. Informative documents are balloted according to a procedure outlined by HL7. While calling for consensus, the ballot procedure for informative documents is not as stringent as that for normative documents. Information documents are not submitted to ANSI for approval.</td>
</tr>
<tr>
<td><img src="Image" alt="Green Icon" /></td>
<td>Green identifies a reference document. Reference documents are not balloted and are included with the ballot material to assist with understanding and comprehension. The Glossary, for example, is a reference document.</td>
</tr>
<tr>
<td><img src="Image" alt="Red Icon" /></td>
<td>Red identifies a normative document. Normative documents are balloted according to procedures that adhere to ANSI’s procedures. Normative documents must pass a full normative level ballot. Normative documents, once they’ve passed ballot, are submitted to ANSI for approval.</td>
</tr>
<tr>
<td><img src="Image" alt="Blue Icon" /></td>
<td>Blue identifies a group of documents that fall into one or more of the categories listed above. Many of the domain documents are grouped together under a blue section heading. This is simply an easy way to group documents.</td>
</tr>
<tr>
<td><img src="Image" alt="Gray Icon" /></td>
<td>Gray identifies a draft only document. Ultimately, this document may become normative, informative or reference but at the time of balloting, a gray book means that this document or document group will be draft only and not ballotable.</td>
</tr>
<tr>
<td><img src="Image" alt="Purple Icon" /></td>
<td>Purple identifies a normative document that is (or will be) Draft Standard for Trial Use (DSTU).</td>
</tr>
</tbody>
</table>
Finding ballot material

- Although you can navigate all of the V3 site using the navigation frame, HL7 provides a quick reference means to locate ballot material.
- In section 2 Welcome click on the link to V3 ballot packages

V3 Ballot Packages - this section lists the ballotable documents in this ballot web site. You can use it to quickly identify the location of ballot items.

- This link will take you to a section of the standard that contains a listing of all ballot (see picture on next slide)
Ballot Packages

4 V3 Packages

4.1 Ballotable Documents in this V3 Ballot Package

The following material contains the content for the distinct ballot groups in different stages of Informative, Draft Standard for Trial Use (DSTU), and Normative ballot in this cycle that you may find in this V3 ballot standard:

4.1.1 Foundation Documents

- Core Principles and Properties of Version 3 Models, Release 1
- Data Types — Abstract Specification, Release 2
- Reference Information Model, Release 2
- Using SNOMED CT, Release 1

4.1.2 Specification Infrastructure, Implementation Technology Specification and Services Documents

- Common Terminology Services, Release 2
- Entity Identification Service (EIS), Release 1

4.1.3 Domain Analysis Models

- Study Participation Domain Analysis Model (CDISC Content to Message), Release 1
  Note: This DAM is located with the Regulated Studies Domain under Universal Domains.

4.1.4 Universal Domain Documents

- Blood, Tissue and Organ; Donation Topic, Release 1
- Care Provision; Care Composition, Release 1
- Care Provision; Clinical Document, Release 1
- Care Provision; Health Concern, Release 1

Links on this page will take you directly to the material that is being balloted
The Domain Material

- The link from the Ballot Packages page takes you to the top level of the applicable domain. For example, if we choose **Regulated Studies; Study Participation (CDISC Content to Message)**, Release 1, we are linked to the top level of the **Regulated Studies** domain.
- Each Domain has a table of contents as shown on the right.
- Scroll down the table of contents to find the Topic of interest.
The Topic

- Each Topic has a table of contents that will assist you in finding key items.
- The topic can be read by scrolling through the text.
- As you read the Topic, make note of any areas of concern or recommended changes.
- In some topics you will find additional downloadable files such as a PDF of an implementation guide.
Refined Message Information Models

- Messages and common message element types (CMETs) being balloted will contain a Refined Message Information Model or RMIM. There is additional functionality that will help you review this material.

- Click on the thumbnail and the model opens in a new window.
Navigating the RMIM

- The graphics within this diagram are linked to a table.
- Clicking on a box (Study for example) will open up the table within the browser to display class and attribute information.
- If you do not want a linked diagram you can link go a pure graphic rendition.
The Table View

- The table provides detailed information about the data types along with class and attribute information. The classes and attributes are linked to the Reference Information Model (RIM) to provide additional information.
- If you wish to work in Excel there is a link at the top of the page.
Here is the same information from the previous slide displayed in the Excel file.
Downloading the Ballot

- As previously mentioned the front page of the ballot site has a link to a download page.
- If you decide to download the ballot it is recommended that you download the full sight.
- It is recommended that you download over a high speed connection due to the size of the download (May 2009 was 315 Megabytes)
- When you unzip the files you download, create a central "root" directory on your hard drive to which you will then extract the zip file contents.
- It is recommended you set up a directory named based on the ballot you are reviewing, for example, “C:\HL7V3BALLOT_2009MAY”.
- Once extracted, find the file named INDEX.HTM and use this to launch the ballot.
Section 3: Wrap-up

- Ballot material is provided as either a download document, zip file or from the ballot website.
- It is recommended you sign up for the ballot list service to be notified of ballot issues or patches.
- For V3 standards the ballot site provides quick links to Domains that contain topics for ballot.
- Keep notes as you review the ballot so that you can provide comments on the material.
Section 4: Voting

Objectives

- Understand the type of vote you can cast.
- Understand how to fill out the ballot spreadsheet
Types of Votes

- The voting tab of the ballot desktop allows you to cast the following votes.
  - Affirmative – This may include affirmative comments or suggestions.
  - Abstain – no vote but wish to remain in the ballot pool for future balloting on the standard
  - Negative – This must include comments. Negative votes with no comments are not counted as valid votes.

Note: some voters refer to comments from other voters “See comments from John Doe” If there are no comments from that voter the negative ballot is not counted as a valid ballot.
Ballot Comment Spreadsheet

- It is important to utilize the Ballot Comment Spreadsheet for making comments on a ballot. This allows for automatic consolidation of all comments so that the work group can manage reconciliation in an effective and timely manner.
- The ballot comment spreadsheet can be downloaded from the Ballot Desktop.
- If you download all comment spreadsheets in the single zip file provided you can locate the correct spreadsheet based on the name of the spreadsheet file.
  - The spreadsheet will be named `ballotComment_BallotName`
  - Example `BallotComment_EHR_FM_R1_1_N1_2009MAY` is the Ballot Comment Spreadsheet for the EHR Functional Model Release 1 Normative 1 for May 2009.
Filling out the spreadsheet

- The spreadsheet has the following tabs
  - Submitter
  - Ballot
  - Instructions
  - Instructions Continued
  - Format Guidelines
  - Setup
- You fill in your information and comments on the submitter and ballot tabs.
The Submitter Tab

1. Verify that the Ballot Title is the correct title for the ballot you are commenting on
2. Fill in your name in the Submitted by Name: field
3. Fill in your e-mail address in the Submitted by email: field
4. Fill in your phone number in the Submitted by Phone: field
5. If you are representing an HL7 member organization different than your employer, fill out Submitted by Organization: field
6. Fill in the Submission Date: field with the date of your vote.
7. Pick your vote (Affirmative, Negative or Abstain) from the drop down
Entering Comments

- Click on the **Enter Ballot Comments (Line Items)** link below the submitter information
- Do not alter the first column labeled **Number**
- Enter each comment in its own row
- Under **Ballot Committee** select the committee managing the ballot from the drop down list
- Select the type of **Artifact** the comment applies to from the list shown in the table on the right

<table>
<thead>
<tr>
<th>HD</th>
<th>Hierarchical Message Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>Application Roles</td>
</tr>
<tr>
<td>RM</td>
<td>Refined Message Information Model</td>
</tr>
<tr>
<td>IN</td>
<td>Interaction</td>
</tr>
<tr>
<td>TE</td>
<td>Trigger Event</td>
</tr>
<tr>
<td>MT</td>
<td>Message Type</td>
</tr>
<tr>
<td>DM</td>
<td>Domain Message Information Model</td>
</tr>
<tr>
<td>ST</td>
<td>Storyboard</td>
</tr>
<tr>
<td>??</td>
<td>Other</td>
</tr>
</tbody>
</table>
Entering Comments Continued

- Enter the Artifact ID in the fourth column.
- Next fill in Section in the sixth column.

**EXAMPLE:**

9.4.1 Study Participation RMIM (PORT_RM100001UV01)

Artifact is RM
Artifact ID is PORT_RM100001UV01
Section is 9.4.1
Vote and Type

- For each comment select the vote and type from the drop down in column eight
  - **Neg-Mj**: Negative Vote with Reason - Major.
    - Use this in situations where the content of the material is non-functional, incomplete or requires correction before final publication.
    - All Neg-Mj votes in normative ballots must be resolved by the work group.
  - **Neg-Mi**: Negative Vote with Reason - Minor.
    - Use this when the comment needs to be resolved, but is not as significant as a negative major.
  - **A-S**: Affirmative Vote with Comment - Suggestion.
    - Use this if the work group is to consider a suggestion such as additional background information or justification for a particular solution.
  - **A-T**: Affirm Vote with Comment - Typo.
    - If the material contains a typo such as a misspelled word, enter A-T.
  - **A-C**: Affirm Vote with Comment
  - **A-Q**: Affirm Vote with Question
Commenting

- If appropriate, copy and paste the existing ballot material into the **Existing Wording** column.
- Enter your desired change into the **Proposed Wording** column.
- In the **Comments** column enter any rationale for the change.
- In the **In Person Resolution Required?**, select yes to indicate that you would appreciate discussing particular comments in person during a Committee Meeting.
- Save the spreadsheet.
Voting and Uploading

- On the Ballot Desktop select the Vote tab
- Scroll to the voting block for the standard you wish to vote on
- Select the type of vote from the radio button
- If you have a comment spreadsheet, press the upload button and select the file you previously saved.
  - Be sure to verify you are uploading the correct file for the ballot
- Read the disclaimer at the bottom of the page and check it off.
- Press submit to cast your ballot
Section 4: Wrap-up

- You may cast an Affirmative, Negative or Abstain vote for any standards in ballot pools you are participating.
  - Affirmative votes may have comments of an affirmative nature (Comment, Suggestion, Typo or Questions).
  - Negative votes must have one or more negative comments (Negative Vote with Reason – Major or Minor).
- You are strongly encouraged to enter comments using the BallotComment spreadsheets.
  - The process of reconciling ballots is greatly facilitated by use of the spreadsheet.
Final Comment

- The HL7 ballot process is a consensus process that allows for constructive contribution to standards through the ballot process.
- Comments are encouraged and when given in a constructive manor strengthen the standards.
- Balloting is not difficult but it can be time consuming. Ballots are open for about four weeks to allow for sufficient time to review the material.
The End