"Division" Structure for HL7 Prefaces
- User Guide for Description Edition –

1 Introduction
This document is an addendum to the HL7 PubDb User Guide and the User Guide for the HL7 Description Editor. It documents changes to these tools that allow the addition of division ('div') elements to selected sections of a domain specification.

1.1 Rationale
The Publishing Committee undertook this change in order to better align the appearance of domain documents derived from a PubDb with those of other V3-XML-based documents that were hand edited. One of the differences was that the free-edit documents included preface sections that allowed structured sub-divisions for notes, changes, acknowledgements and the like. Moreover, this material was in a stand-alone section distinct from the normative content. In contrast, the domain prefaces were represented solely with bold headings and lists for structuring the content and were published as the opening part of the introduction.

2 'division' Element

2.1 Characteristics of a "Division"
A division (designated in the HL7 XML schema as a 'div' element) has the following characteristics:
• The division element is a section or container that can hold any of the other markup elements, including other (child) divisions. [Wherever it occurs, a division must be the last element in its parent.]

• Each division will be automatically numbered as a child of its parent.

• Top level divisions will be included in the Table of Contents, which in HL7 shows a maximum of two levels.

• The division has a "title" attribute that contains the title or, heading that will be displayed when the division is rendered.

• The division has an 'id' attribute that is required and must be unique within its document. [To assure uniqueness, use "pref" as a prefix for 'id' values in the preface, and "introd" as a prefix for 'id' values in the domain introduction.]

• The 'id' attribute will be used to create an HTML anchor whose value is the value of the id, to allow hyper-linked references to the division.

2.2 Where can it be used?
In current (February 2005) HL7 Publication Data Bases, the 'div' element is limited to use in the domain "preface" (description of a "999999" domain preface) and in the description ('Introduction and Scope') of the domain itself.

Actually, the software will allow use of this element anywhere, but this will produce an 'invalid' document with probable flaws in the final rendering. Subsequent changes may be made to allow its use in other places.

3 Change in Handling of a Preface
With this change, the rendering of the domain preface, as defined in the "999999" domain will change. Instead of being simply the first sub-division of "Introduction and Scope", the preface will be moved a separate reference "Preface" section that will appear before the normative Introduction. It will be numbered with lower case Roman numerals for its outer divisions.

For those "999999" that have not been changed to use division elements, an opening division titled "Notes to Readers", and the existing content will appear in that division.

4 Installation of Tools
In order to use these new tools, you need to install the newest (Version 2.02) of the PubDB tools, and migrate your domain data to that data base version. In order to see the new data rendered in HTML, you will also need to install release 2.967 (or later) of RoseTree.

5 Creation of 'div' elements in Spy WYSIWYG editor
Once the new tools have been installed, a 'div' element will be included among the selections presented by the XML SPY WYSIWYG editor window. Further, this
installation includes two sample XML files that will be installed in C:\Program Files\HL7\PubDb\Documents. Specifically,

- **ExamplePrefaceSkeleton.xml** is the markup used to create the examples shown here, and lists the headings and sequence that are preferred by the Publishing Committee.
- **ExampleDomainIntroductionFromPORX.xml** shows an example of 'div' markup used to create a structured domain introduction. This example was created from the December 2005 Pharmacy ballot where the division mark-up had been "faked" by the committee.

### 5.1 Appearance of 'div' elements in Spy

The following figure shows the appearance of the divisions in the WYSIWYG editor and explains each of the elements of that entry.
5.2 Appearance of nested 'div' elements in Spy

The appearance of 'div' elements in Spy is shown in the following figure. The limitations of the available mark up mean that the editor is not truly WYSIWYG, but rather WYSAPWYG (What You See Approximates Poorly What You Get):

![Diagram showing nested 'div' elements in Spy]

5.3 Adding "sibling" 'div' elements to a document

The following figure shows the steps to add a new 'div' element in a preface.
5.4 Adding "child" 'div' elements in Spy

The following figure shows the steps to create a "child" 'div' element after the text of its parent 'div':

6 Publishing with 'div' markup

Desk-top publishing with the new preface markup is the same as in the past, with the sole exception of a new option on the Desktop Publishing Widget. The option, detailed in the figure below, allows one to revert to the previous form of publishing (with the preface and introduction merged, but remember that the Publishing Committee will not use this option for the next ballot.
6.1 Appearance of Independent Preface in HTML

The following figure shows the way the new Table of Contents will display a preface with divisions. Note that each of the 'div' elements in the preface will receive a separate number.

Table of Contents

<table>
<thead>
<tr>
<th>Preface</th>
</tr>
</thead>
<tbody>
<tr>
<td>i Notes to Readers</td>
</tr>
<tr>
<td>ii Acknowledgements</td>
</tr>
<tr>
<td>iii Changes from Previous Release</td>
</tr>
<tr>
<td>iv Prerequisites, Assumptions &amp; Conventions</td>
</tr>
<tr>
<td>v Known Issues &amp; Planned Changes</td>
</tr>
<tr>
<td>vi Other Notes</td>
</tr>
</tbody>
</table>

1 Overview

1.1 Introduction & Scope

2 Combined Topic

2.1 Storyboards

2.2 Application Roles
6.2 Appearance of Nested 'div' Elements in a preface

The skeleton preface includes a couple of nested elements to demonstrate how these will appear in the final output. A rendering of that skeleton is shown in the following figure:
6.3 Appearance of 'divisional' preface when merged with Intro

The following figure shows how the same preface would appear if it were published as merged with the Introduction (as in the old style):

![Diagram showing preface structure]
6.4 Appearance of text-only preface with new publication mode

If there are older prefaces (with text-only markup) in a PubDb, these will still be rendered in a separate preface section that includes a single "Notes to Readers" section to hold the text. This section will be automatically created if a preface has no 'div' markup included. The result appears as in the following figure:
6.5 Example Structured Introduction

As noted previously, 'div' elements can also be used to structure content for domain introductions. The following example shows a fragment of the example Pharmacy file that is included in the documentation section:

![Example Structured Introduction](image)

- 1.3 Implementation issues
  - 1.3.1 Timing Issues
    - 1.3.1.1 Representation of Timing

Timed events occur frequently in healthcare where time has to be recorded for clinical, administrative or medico-legal reasons. The following discussion relates to timed events in the medication management domain as represented in the Medication Information model. Additional material on timing is available in the RIM and Data types sections of the HL7 documentation.

In the medication information model the concept of time apply to ACTS (eg. medication