

Infopath to HTML Form Converter (Design Page)

Note: These are NOT instructions for users of this module. This is a description of the project for the developers

Background

Originally, the only way to create data entry forms in OpenMRS was using Microsoft Infopath. Now there are alternatives--one that has several advantages is the HTML Form Entry module. It would ease migration to this module if there were an automatic utility to convert an Infopath form to an HTML Form. The point of this project is to write that utility.

What's in an Infopath form? An HTML Form?

An Infopath form is an XSN file. (This is actually just a CAB archive with an XSN file extension. Windows can handle these natively, while on linux you'd use the 'cabextract' utility.) Among other files, the archive contains:

- formentry.xsd -> the model of the form, representing the "form schema" in OpenMRS
- page#.xsl (multiple) -> each of these is the view for a single page of the form

An OpenMRS HTML Form is an xml document that contains mostly HTML, but also some special tags, in particular <obs/> which puts an observation widget on the form. See [HTML Form Entry Module](#) for an example and [all available tags](#).

Examples

Attached [here](#) is an example of an Infopath XSN file that represents PIH's Cardiology Consultation form. We will use this as an example. To see what this looks like you would need to download the file, and (in Windows) right click on it and say Design.

What you need to do

You need to merge the xsl files in the infopath XSN, along with supporting information from the xsd file in the XSN, and create an HTML Form Entry xml document from it. Using XSLT might be the way to go, or else doing some brute-force java code with regex searches.

These are all based on the example.

Element	Infopath representation	HTML Form Representation
Pages	File names page1.xsl	<pre><htmlform> <page title="Page 1"> ... </page> ... </htmlform></pre>
Sections	???	<pre><section headerLabel="section 1"> content here </section></pre>
Patient Name	(other things besides given_name work similarly) <code> <xsl:value-of select="patient/patient.given_name"/> </code>	<pre><lookup expression="patient.personName.givenName" /></pre>
Encounter location	the whole radio button section with Rusumo, Mulindi, etc.	<pre><encounterLocation order="30,27,etc" /></pre>

Encounter date	Date picker widget bound to encounter/encounter.encounter_datetime	<pre><encounterDate/></pre>
Encounter provider	Widget bound to encounter/encounter.provider_id (after "Form completed today by:")	<pre><encounterProvider/></pre>
Checkbox for coded observation	the checkbox before "patient est hospitalisé"	<p>warning that this cannot be handled correctly (because of the value-when-unchecked)</p> <pre><obs conceptId="3389" answerConceptId="1065" /></pre>
Checkbox group for multi-select coded observation	The checkboxes in 3. like "bonne apparence" and "cachectique"	<p>Needs multiple widgets:</p> <pre><obs conceptId="2419" answerConceptId="3227" /> <obs conceptId="2419" answerConceptId="5622" /></pre>
Radio button group for coded observation	the radio button group including "NYHA classe I"	<p>Collapse to a single element. If you change the layout, give a warning.</p> <pre><obs conceptId="3139" style="radio" answerConceptIds="3135,3114,..." /></pre>
Select list for coded observation	no examples in this form	archive:HTML_Form_Entry_Module_HTML_Reference#Boolean
Checkbox for boolean observation	the checkbox before "La même que DDB" in 1.C.	<pre><obs conceptId="6208" style="checkbox" /></pre>
Other booleans	no examples in this form	<pre><obs conceptId="a" style="checkbox" /></pre>
Textarea for text observation	text box under "La même que DDB" in 1.C.	<pre><obs conceptId="3221" style="textarea" /></pre>
Text field for text observation	text field in first row under "4. Labos préalables"	<pre><obs conceptId="2216" /></pre>
Text field for numeric observation	the text box after Poids	<pre><obs conceptId="5089" /></pre>
Date observations	The column under "4. Labos préalables"	<pre><obs conceptId="3267" /></pre>
Submit button		<pre><submit/></pre>
Other HTML Markup	<pre>< table > < div > ...</pre>	Pass this straight through

Obs Groups

- If an obs field is not directly in the <obs> section of the xsd, but it's inside a grouping concept, it needs to result in an <obsgroup groupingConceptId="567">...</obsgroup>
 - Note that obs groups in HTML forms need to have all their widgets next to each other, whereas this isn't required in infopath. If you find something that can't be represented, then throw an error.