

## Xdisect forms detailed xml design notes

# Detailed Design of XML for XDisect Forms

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TODO: ..... 14

### Terms

#### Forms Manager

- ?? [Questions](#) – A question is the smallest atomic unit. It represents a single input field which must be collected by XDisect forms and which
  
- ?? [Sections](#) – A section is a displayed grouping on a form. For example all the personal address information may be placed in one section while buying decisions would be in a separate section. All questions belong to exactly one section. If a question is added to a form then that section will also be automatically added. Questions are sorted with in the context of the section.
  
- ?? [Forms](#) – A form is a group of questions that have been aggregated together for the purpose of gathering a specific set of data from the end user.
  
- ?? [Library](#) - The set of all questions which are currently available in the application. When building a form the questions to place on the form are selected from the library. In general the library is kept under very secure control in an effort to ensure consistent presentation to a given customer.
  
- ?? **Future - Question Groups** –
  
- ?? **FUTURE \* Compound Questions** – A group of questions that are actually a single value. For example a phone number can be entered in 3 segments but is really a single question.

#### Security Related

- ?? [Privileges](#) –
  
- ?? [Users](#) -
  
- ?? [User Group](#) -
  
- ?? [Resources \(URI\)](#) -

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### Intermediate Generated Structures

#### Primary Intermediate generated form XML.

?? [sample meta form.xml](#) – Render form is a summary document which contains the form specifications with all of it's fields as well as the custom overridden setting for each of those fields for that form.

It is generally created whenever the form is changed or when one of the fields which belong to the form has changed. It is this intermediate form that is generally transformed into the XSL sheet which is used to actually generate the form during run time. See the quest 6 series of examples shown in the [XSL design notes](#) for an illustration of how this meta form is used to render the various aspects of the system.

In this structure you will section element that contains rows that contain questions. The forms domain object by using nested XDisect queries and custom sort & ordering logic builds this up dynamically.

Note: The source of this sample is not included in this document because of the size.

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### Detailed Structures

#### Questions

##### Sample XML ([question\\_sample.xml](#))

```
<question>
  <gid>field_label</gid>
  <uri>field_label</uri>
  <user>jells</user>
  <created>2001-04-17 19:43:21</created>
  <edited>2001-04-17 19:43:21</edited>
  <group>programmer_admin</group>
  <section>basic</section>
  <label>field label</label>
  <descrip>label of field that will display
    when the question is rendered on the
    form
  </descrip>
  <remark></remark>
  <status>avail</status>

  <policy>
    <mandatory>yes</mandatory>
    <read_only>no</read_only>
    <auto_suppress>no</auto_suppress>
  </policy>

  <display>
    <priority>100</priority>
    <field_type>text</field_type>
    <data_values>100</data_values>
    <label_relative>left</label_relative>
    <width>20</width>
    <same_line_prev_quest>no</same_line_prev_quest>
    <no_rows>1</no_rows>
    <max_column>1</max_column>
    <help>
      <text>What field label would you
        like to be displayed for this question.
        This is generally the label that occurs
        to the left of the actual field on the
        screen. It is generally best to
        limit this value to less than 25
        characters.
      </text>
      <position>below</position>
    </help>
  </display>

  <storage>
    <review>9000</review>
    <element_name>
      <source>question.label</source>
      <dest>question.label</dest>
    </element_name>
  </storage>
</question>
```

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```

</element_name>

<data_type>string</data_type>
<picture>x*</picture>
<customer_field>none</customer_field>
<customer_group>none</customer_group>
<sample>what operating system</sample>
</storage>
</question>

```

### Explained

The XML path for the Element. Levels are separated by “.”. In some instances an extra space was added around the “.” To help word wrap correctly.	Description of the Element
Question	The container for a single unique question.
Question.id	A unique Id assigned to the question at the time it was created.
Question.user	The user which created this question.
Question.created	The time stamp current when the question was created.
Question.edited	The time stamp current when the question was last saved.
Question.section	The Section this question is associated with.
Question.label	The label with will be displayed for this question.
Question.descrip	Descriptive text which will be displayed for this question. Normally below or to the right of the actual data widget.
Question.remark	A remark or note about this question. This is typically used as documentation for the question.
Question.status	The status is active, inactive or retired. Only active questions can be placed on forms.
Question.policy	A grouping of display policy related elements. In general policy related values can be overridden when a question is assigned to a form.
Question .policy .mandatory	Is this question mandatory. If it is then the forms where it appears will not be accepted unless the field has a supplied value.
Question .policy .read_only	Display this question as read only when ever there is data already present in the field.
Question .policy .auto_suppress	If this field has value then do not display on the form either as read only or mandatory.
Question.display	Display related fields are those which primarily affect the actions of the rendering engine to customize the appearance of the field on the rendered HTML page.
Question .display .priority	This is a sort key used within sections to determine which order fields will be displayed on the form. In this instance consider this a sub key where the section is the primary segment. In this the priority of the section is applied first and this priority is displayed second.

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Question .display .field_type	This is the widget type which will be used to render this field. Text, Area, Radio, check, Select, Multi-select.
Question .display .data_value	This is a set of default data values that will be used to initialize this field. Multiple values such as list boxes this will be an array. If the
Question . display . label_relative	This indicates to the rendering engine that it should display the label to the left, right, above or below the actual data widget.
Question . display . width	This indicates the width to allocate for the display widget. This only works on some widgets such as
Question . display . same _ line_prev_quest	By default the rendering engine will always start each question in it's own vertical row on the form. However it is possible to override this behavior by specifying a "yes" in this field. This is useful for fields such as city, state, zip which are best placed on the same line of the form.
Question . display . no_rows	This is normally 1 and only applies for widgets that can span more than one row such as text area and select lists.
Question . display . max_column	This is normally used for radio buttons and check boxes where a set of the possible values for the widget are specified in the data values path and there are more than will comfortably fit on one line then we will need to align them in a sub table and for that we need to know how many columns to expect.
Question . display . help . text	Help text is text which is made available for the field. In is generally not displayed on the main form or if displayed is shown in a smaller font than the label or descriptive text.
Question . display . help . position	This indicates where the help text is shown. The values are popup, below the field, Hyperlink.
Question.storage.	This is the section that tells the forms manager what to do with the data after the form is submitted.
Question.storage.review	This is a policy of a number of days that the data is good. Once this number of days since last change is exceeded then the auto suppress flag is overridden and the user is forced to confirm the value if they access any form that contains this value.
Question .storage .element .source	This is the element in the underlying XML structure of the users profile record to fill in with the default value of this field.
Question.storage.dest	This is the element in the underlying xml structure of the users profile to fill in with the value of this field on the users submit.
Question . storage . data_type	This is the storage type such as string, date, time, integer, decimal. The form manager uses this value to apply basic constraint checks to ensure the value entered is in a viable range.
Question . storage . picture	This is a RE expression which is applied against the field prior to accepting it for input. It can also be a javascript function call name which will be called to validate the value of the field.
Question . storage . parent_group	The customer field which is the actual data source for this field. If this is set to any value other than None then this question can only be read only since only parent_group can change parent_group fields. If a parent_group field is displayed on a form then there must be a <edit> button near by which can switch the user to a form where they can edit that value.
Question . storage . customer_division	This is the customer division field name for this field. This is only used to allow future cross system data exchange.
Question . storage . samp le	A sample data value which can be used to build a sample data structure for a user profile that has this question filled in. For

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	multi select lists and check boxes this may be an array.

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### Sections

A section is a displayed grouping on a form. For example all the personal address information may be placed in one section while buying decisions would be in a separate section. All questions belong to exactly one section. If a question is added to a form then that section will also be automatically added. Questions are sorted with in the context of the section.

#### Sample XML ([section\\_sample.xml](#))

```
<section>
  <label>personal contact</label>
  <level>major</level>
  <remark>
    questions that are part of the persons
    personal contact information should be
    included here
  </remark>
</section>
```

#### XML Explained

XML Path name	Description
Section	The xml container for each section related item.
section .label	This is the label that will be rendered on the form at the top of the section.
section .remark	Documentation describing this section. The form authors will be able to see this documentation to determine if the section makes sense for their form.
Section .level	This is the level of section. And can have the values "major" and "minor". If major then it will render a complete new section with the dark top banner and light text. If minor it will only insert a horizonatal line and and insert the label left justified. In release 1.x only the major sections are supported. In the future we may also support a "page" which means this section will force the start of a new page.



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### Forms

#### OverView

#### Sample XML ([form\\_sample.xml](#))

```
<form>
  <gid>quest_edit_form</gid>
  <uri>question_edit_form</uri>
  <title>question Maintenance Detail</title>

  <last_edited>
    <date>2000-01-09</date>
    <by>jwork</by>
  </last_edited>

  <created>
    <date>2000-01-01</date>
    <by>jwork</by>
  </created>

  <remark>
    This form is used to edit questions
  </remark>

  <top_desc> This form gathers information about a
question that
will appear in the
  library
  </top_desc>
  <review_date>2001-01-19</review_date>
  <sub_label>some text</sub_label>
  <status>published</status>
  <template>no</template>
  <owners>
    <created_by>jwork</created_by>
    <editors>pybiz</editors>
  </owners>

  <question>
    <gid>field_label</gid>
    <auto_suppress>no</auto_suppress>
    <mandatory>yes</mandatory>
    <access_hint>write</access_hint>
  </question>

  <question>
    <gid>field_priority</gid>
    <auto_suppress>no</auto_suppress>
    <mandatory>yes</mandatory>
```

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```
<access_hint>write</access_hint>  
</question>  
  
</form>
```

### XML Explained

XML Path name	Description
Form	The xml container for each section related item.
	This is the label that will be rendered on the form at the top of the section.
section .remark	Documentation describing this section. The form authors will be able to see this documentation to determine if the section makes sense for their form.

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### **Library**

#### **OverView**

#### **Sample XML**

#### **XML Explained**

<b>XML Path name</b>	<b>Description</b>
Library	

## **Detailed Security Related XML Structures**

### **Privileges –**

#### **.. OverView**

#### **Sample XML**

#### **XML Explained**

<b>XML Path name</b>	<b>Description</b>
Library	

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### **Users –**

**OverView**

**Sample XML**

**XML Explained**

XML Path name	Description
Users	

..

### **User Groups –**

**OverView**

**Sample XML**

**XML Explained**

XML Path name	Description
User groups	

..

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**Resource (URI) –**

**OverView**

**Sample XML**

**XML Explained**

XML Path name	Description
Resources	

..

**XYZ99 –**

**OverView**

**Sample XML**

**XML Explained**

XML Path name	Description
Privileges	

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### Notes & Questions:

A question may need to have a different destination based on the form. For example different product registration forms may store their values in different locations based on what product they are gathering information on.

In data values items prefixed with a \* will be selected by default.

A real challenge will be setting the selected to the data value active in the data prior to display rather than the default selected.

What about allowing the users to specify a style which could be used to change some of the baseline rendering for the widget. This would be a CSS style.

What about know what the default next question to place would be so that if they place the city it is really easy to add state and zip.

Should it be possible to assign questions to a user group in order to allow different sets of library admins to control different sections of the library.

Should we consider a system which can support multiple XML libraries. In that case would the different libraries be limited by user groups to the form admins.

### TODO:

?? Need to document how the arrays will work. So that all fields in a form with a given array will element will be grouped into a single array element. E.G. We take all the person.register.0.product.id where several fields would have product.register.0 and we use that to determine that we will be adding a single new element to the person.register array.

??