

**HOW TO CONVERT A SURVEY FROM WORD TO
queXML USING ALTOVA XML SPY 2005**

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PURPOSE

The purpose of this manual is to teach you how to convert a questionnaire written in a word processor into queXML.

INTRODUCTION

DCARF uses a program called Altova XML Spy 2005 to achieve this task. XML Spy 2005 uses a computer language called XML (Extensible Markup Language). XML has received widespread support and adoption in the computer industry.

XML Spy 2005 has a number of advantages;

1. Saves time and accelerates development projects. It allows programmers to work with XML using range of views and editing options.
2. It is powerful and flexible. XML Spy delivers all the power programmers need to create the most sophisticated XML applications, yet is flexible enough to allow users to work with XML using views and options that best suit their particular requirements and preferences.
3. Productivity. Through its design, editing and debugging capabilities, XML Spy increases developer productivity significantly while decreasing the occurrence of errors.

XML LANGUAGE

XML stands for Extensible Markup Language. A markup language is a computer language that specifies the structure and content of a document by breaking the document down into a series of elements, where each element represents a different part of the document.

Markup language consists of:

1. Start tag <
2. Content or elements (this can be text or numbers)
3. End tag />

The start tag denotes the beginning of an element/contents and the end tag denotes the end of elements/contents.

Contents contained within the start and end tags are case sensitive. So for example start and end tags must have matching capitalization.

Example 1: <ARTIST>Miles Davis</artist>

This would result in an error because the starting tag is capitalized and the ending tag is not.

EXPLORING THE STRUCTURE OF AN XML DOCUMENT

An XML documents consist of three parts;

1. Prolog
2. Document body (see diagram) and
3. Epilog

The prolog is optional and provides information about the document itself. It is the prolog that contains the XML declaration. The XML declaration is always the first line of any code in any XML document.

For example

```
<?xml version= "version number" encoding= "encoding type"  
standalone=yes/no"?>.
```

This XML declaration simply states that the data that follows is an XML document and optionally indicates the version of the XML specification that the document complies with.

The document body contains the document's content in a hierarchical tree structure (see diagram). The content of a document will be discussed in greater detail later in the manual.

The epilog contains any final comments or processing instructions.

DOCUMENT BODY

Refer to the diagram provided. This diagram is the framework within which you will create the survey.

You will see that the questionnaire is made up of various parts some of which are compulsory to include in the questionnaire and others which are optional.

The optional parts of the survey are those that are surrounded by the dotted lines for example within the Investigator and data collector part of the questionnaire it is optional whether to name an organization, have an address, phone number, fax number, email address and website.

The compulsory parts of the survey which must be included are indicated by solid lines for example title, investigator, data collector and section.

We will look at each part of the questionnaire in detail.

PART 1: TITLE & SUBTITLE

The title is the name of the questionnaire.

For example it may be “Creating Communities” or “Eating and Shopping in Newcastle”.

It is compulsory to have a title as indicated by the solid lines surrounding title

You must now type the title in XML language using the tag system.

For example the title part of the survey may look as follows:

```
<title>Creating Communities</title>
```

You have opened the title tag using < entered the data and then closed the title tag using />.

You will notice on the diagram that below title is an option (indicated by the dotted lines) to include a subtitle if you so desire.

If you chose to include a subtitle it may look as follows;

```
<title>Eating and Shopping in Newcastle</title>  
<subtitle> Household Questionnaire</subtitle>
```

PART 2: INVESTIGATOR

Note that this part has a number of sections.

Your diagram indicates that this part has a number of compulsory sections which include;

Investigator

Name (first name and last name)

You should also note that;

- Street
- Suburb
- Postcode
- Country

are also compulsory if you chose to put in an address.

The section also has a number of optional sections which include;

Salutation

When you type in the name of the investigator it is optional whether you give them a salutation for example: Mr, Mrs or Ms.

Organization

This for example may be Deakin University

Phone number

Email address

Website

You must now type the investigator part of the survey in XML language using the tag system.

For example the investigator part of the questionnaire may look as follows;

```
<investigator>  
<name>  
<salutation>Dr</salutation>  
<firstName>Ken</firstName>  
<lastName>Reed</lastName>  
</name>  
<organization>Deakin University</organization>
```



```
<address>  
<street>221 Burwood Highway</street>  
<suburb>Burwood</suburb>  
<postcode>3125</postcode>  
<country>Australia </country>  
</address>  
<phoneNumber>6296</phoneNumber>  
<emailAddress>ken.reed@deakin.edu.au</emailAddress>  
<website>www.deakin.edu.au</website>  
</investigator>
```

For each element you have opened the title tag using < entered the data and then closed the title tag using />.

PART 3: DATA COLLECTOR

This section is compulsory to include in the questionnaire.

The compulsory sections within data collector include;

Name(first name and last name)

In the data collector section of the questionnaire there are a number of optional sections which include;

Salutation

Organization

Address

Please not however if you state the address of the data collector you must also include; street, suburb, postcode and country.

Phone number

Fax number

Email address

Website

You must now type the data collector part of the survey in XML language using the tag system.

For example the data collector part of the questionnaire may look as follows;

```
<dataCollector>
<name>
<firstName>Judy</firstName>
<lastName>Heath-Administrator</lastName>
</name>
<organization>Deakin Computer Assisted Research Facility</organization>
<address>
<street>221 Burwood Highway</street>
<suburb>Burwood</suburb>
<postcode>3125</postcode>
<country>Australia</country>
</address>
<phoneNumber>03 9244 6911</phoneNumber>
<faxNumber>9244 6370</faxNumber>
<emailAddress>ken.reed@deakin.edu.au</emailAddress>
</dataCollector>
```

PART 4: QUESTIONNAIRE INFORMATION

It is optional whether you include this part in the Questionnaire as indicated by the dotted lines surrounding questionnaireInfo.

If questionnaire information is included this part of the survey it usually contains a brief summary of what the survey is about.

For example: This questionnaire is mainly about the food shopping habits and should be completed by the person who most often does the food shopping in your household.

If you chose to include questionnaire information you will note that it is compulsory to include;

Position(before, after or during)

Text

Administration (self or interviewer)

(A) Position

A drop down column will appear giving you the option of positioning the text contained in the questionnaire information either

- before
- after or
- during

(B) Administration

A drop down column will appear giving you the option of either;

- interviewer
- self

If this is a mail survey you should enter 'self' and for and if it is a phone survey you should enter 'interviewer'.

You must now type the questionnaire information part of the survey in XML language using the tag system.

The questionnaire information part of the questionnaire may look as follows;

Example1:

```
<questionnaireInfor>  
<position>before</position>
```

<text>Throughout the questionnaire you are requested to give information for the years 2004 and 2000</text>
<administration>self</administration>
</questionnaireInfo>

Example 2:

<questionnaireInfo>
<position>before</position>
<text> This questionnaire is mainly about food shopping habits and should be completed by the person who most often does the food shopping in your household. If this is not you please give it to the shopper to complete</text>
<administration>self</administration>
</questionnaireInfo>

Example 3:

<questionnaireInfo>
<position>before</position>
<text>All information will remain strictly confidential and will not be disclosed to any third party. All information concerning you and your household will be held under the terms of the Data Protection Act</text>
<administration>self</administration>
</questionnaireInfo>

PART 5: SECTION

This part of the questionnaire has to 2 main elements:

- Question
- SectionInfo

(1) Question

You will note that it is compulsory for a question to contain;

Text

Response

You will note that it is optional for a question to include;

Qualifier (text is written within the brackets)

Specifier (text is written within brackets)

Directive (however if you include a directive it is compulsory to list position, text and administration)

- Position (before, after or during)
- Text (text is written within the brackets)
- Administration (interviewer or self)

Subquestion (however if you include a subquestion it is compulsory to include text).

Example: Qualifier

```
<question>  
<text> To what extent did the following vertical linkages exist between  
corporate headquarters and subunits (profit centers, divisions and  
subsidiaries)?</text>  
<qualifier>in 2004</qualifier>  
</question>
```

Examples: Directives

Example 1:

```
<question id="1">  
<text>That's ok, I understand. Thank you very much for your time today.  
Good Bye</text>  
<directive>
```

```
<position>after</position>
<text>Interviewer end call and hang up</text>
<administration>interviewer</administration>
</directive>
```

Example 2:

```
<question>
<text>What is your postcode?</text>
<directive>
<position>after</position>
<text>If respondent unsure, read the postcodes</text>
<administration>interviewer</administration>
</directive>
```

Example 3:

```
<question id="1">
<text>Would you like to note these down?</text>
<directive>
<position>before</position>
<text>If you like I can give you the contact details of the researcher in case
you have any questions</text>
<administration>interviewer</administration>
</directive>
<directive>
<position>after</position>
<text>Betsy Blunsdon: (03) 9244 6272</text>
<administration>interviewer</administration>
</directive>
```

(2) Section Information

The other element is sectionInfor.

It is optional whether or not to include this in the section. However if you decide to include sectionInfor it should be noted that it is compulsory to include;

Position

Text

Administration

Section information commonly includes such things as the title of new sections of the survey for example: Personal Wellbeing or About your household.

For example the section information part of the questionnaire may look as follows;

Example 1:

```
<section>
<sectionInfo>
<position>title</position>
<text>Personal Wellbeing-General</text>
<administration>interviewer</administration>
</sectionInfo>
```

Example 2:

```
<sectionInfo>
<position>during</position>
<text>Please tick one box</text>
<administration>self</administration>
</sectionInfo>
```

Example 3:

```
<sectionInfo>
<position>before</position>
<text>For each of the following questions please tick one box on the scale of
1 to 5. 1 would mean you feel very satisfied and 5 would mean you feel very
unsatisfied</text>
<administration>self</administration>
</sectionInfo>
```

Example 4:

```
<sectionInfo>
<position>during</position>
<text>Please tick the box that best represents the situation in your
household</text>
<administration>self</administration>
</sectionInfo>
```

Example 5:

```
<sectionInfo>
<position>before</position>
<text>Please select all that apply</text>
<administration>self</administration>
</sectionInfo>
```

(3) Response

You will note that a question must have a response.

A response can be either free or fixed.

Free Response

A free response is one which usually requires the interviewer to type in the answer of the respondent. For example; how many adults live in your household? Or what is the name of your organization?

A free response must contain;

Format: currency, date, integer, text and long text

Length: how many characters will you allow?

It is optional in a free response to include;

Label: for example years, months, percentage

Minimum: for example specify lowest number interviewer can enter ie 0

Maximum :for example specify the highest number an interviewer can enter ie100

Skip to : another question

For example the free response part of the questionnaire may look as follows;

Example 1

```
<question>  
<text>What is the name of your organization?</text>  
<response varName="ORGNAME">  
<free>  
<format>text</format>  
<length>48</length>  
</free>  
</response>  
</question>
```

Example 2

```
<question>  
<text>How long have you been in your current job</text>  
<response varName="JOBYEARS">  
<free>  
<format>integer</format>  
<length>2</length>  
<label>years</label>
```



```
</free>  
</response>  
</question>
```

Example 3

```
<question>  
<text> Could you briefly describe the area you consider to be the main  
deficiencies</text>  
<response varName="defareal">  
<free>  
<format>longtext</format>  
<length>18</length>  
</free>  
</response>  
</question>
```

Fixed Response

A fixed response is where the respondent has to answer the question by selecting an answer from the fixed response categories listed.

If a fixed response category is chosen it is compulsory to include within the fixed response category, label and value also.

Category:

Label: this may be a number ie 1, 1-5, text such as yes, no, don't know, unsure, refused or even greater than (gt) or less (lt) than a certain number.

Value: this is usually a number ie 1, 2 etc.

Example 1:

```
<question>  
<text>Have you taken vitamins in the past year?</text>  
<response varName="takvitam">  
<fixed>  
<category>  
<label>Yes</label>  
<value>1</value>  
</category>  
<category>  
<label>No</label>  
<value>2</value>  
</category>  
</fixed>  
</response>  
</question>
```

```
<fixed>
<category>
<label>&gt; 5</label>
<value>1</value>
</category>
</fixed>
```

GUIDE TO CODING DIFFERENT TYPES OF QUESTIONS

(1) Questions with a Yes/No response

Some questions in a survey require the respondent to answer yes or no to a specific question.

For example: Have you taken vitamins in the last year? Yes/No

This question may look as follows;

```
<question>
<text>Have you taken vitamins in the past year?</text>
<response varName= "takvitam">
<fixed>
<category>
<label>Yes</label>
<value>1</value>
</category>
<category>
<label>No</label>
<value>2</value>
</category>
</fixed>
</response>
</question>
```

The variable name given to the response which is contained within the inverted commas enables individuals to quickly determine which question you are referring to so please use a name which best describes the question.

For instance in the above example the variable name given to the question have you taken vitamins in the past year is "takvitam".

(2) Questions which require the respondent to answer by using a scale for example 0-10

Some questions may require the respondent to answer by using a scale.

For example a respondent may be asked to indicate how satisfied they feel with their life as a whole using a scale of Zero-10 where Zero means you feel completely dissatisfied, 10 means you feel completely satisfied and the middle of the scale is 5 which means you feel neutral.

This question may look as follows;

```
<section>
```

```
<sectionInfo>
<position>title</position>
<text>Personal Wellbeing-General</text>
<administration>interviewer</administration>
</sectionInfo>
```

```
<sectioninfo>
<position>before</position>
<text> I am going to ask you how satisfied you feel with your life as a
whole?</text>
<response varName="pwlifewh">
<fixed>
<category>
<label>0</label>
<value>0</value>
</category>
<category>
<label>1</label>
<value>1</label>
</category>
<category>
<label>2</label>
<value>2</value>
</category>
<category>
<label>3</label>
<value>3</value>
</category>
<category>
<label>4</label>
<value>4</value>
</category>
<category>
<label>5</label>
<value>5</value>
</category>
<category>
<label>6</label>
<value>6</value>
</category>
<category>
<label>7</label>
<value>7</value>
</category>
<category>
<label>8</label>
<value>8</value>
</category>
<category>
<label>9</label>
```

```
<value>9</value>
</category>
<category>
<label>10</label>
<value>10</value>
</category>
<category>
<label>Don't know</label>
<value>11</value>
</category>
<category>
<label>Don't understand</label>
<value>12</value>
</category>
</fixed>
</response>
</question>
```

(3) Different Questions with the same response categories

Some parts of a survey may have different questions but all of the questions may have the same response categories.

For example in the Creating Communities questionnaire the majority of the questions looked at how satisfied the respondent was with various things. Although each question was different, all the response categories were the same and required the respondent to use the 0-10 scale where Zero means you feel completely dissatisfied, 10 means you feel completely satisfied and the middle of the scale is 5 which means you feel neutral.

So when different questions have the same response category what is the best way to code this information into the survey?

Do you have to write out each question and response separately??? The short answer is NO. There is a much easier way to approach such questions.

An example can be seen in the Creating Communities questionnaire. The interviewer asked the respondent a series of questions which included;

- How satisfied are you with the economic situation in Australia?
- How satisfied are you with the state of the natural environment in Australia?
- How satisfied are you with the social conditions in Australia?

Each of these questions had the same response category- that is answer each of these questions using the 0-10 scale where Zero means you feel completely dissatisfied, 10 means you feel completely satisfied and the middle of the scale is 5 which means you feel neutral.

Instead of writing each question followed by the response category it is easier to do as follows. Write the first part of the question ie How satisfied are you with.... in the usual <question> and <text fashion> and then make each of the questions a subquestion with the response category written only once at the end of the series of questions.

For example the above question would look as follows;

Example 1

```
<question>
<text>How satisfied are you with...</text>
<subQuestion varName="ndecosit">
<text>the economic situation in Australia?</text>
</subQuestion>
<subQuestion varName="ndatenv">
<text>the state of the natural environment in Australia?</text>
</subQuestion>
<subQuestion varName="ndsocond">
<text>the social conditions in Australia?</text>
</subQuestion>
<response varName="">
<fixed>
<category>
<label>0</label>
<value>0</value>
</category>
<category>
<label>1</label>
<value>1</value>
</category>
<category>
<label>2</label>
<value>2</value>
</category>
<category>
<label>3</label>
<value>3</value>
</category>
<category>
<label>4</label>
<value>4</value>
</category>
<category>
<label>5</label>
<value>5</value>
</category>
<category>
<label>6</label>
<value>6</value>
```

```

</category>
<category>
<label>7</label>
<value>7</value>
</category>
<category>
<label>8</label>
<value>8</value>
</category>
<category>
<label>9</label>
<value>9</value>
</category>
<category>
<label>10</label>
<value>10</value>
</category>
</fixed>
</response>
</question>

```

Example 2

To what extent do the following vertical linkages exist between subunits (profits centres, divisions and subsidiaries)?

The above question would look as follows;

```

<question id= "191">
<text> To what extent do the following vertical linkages exist between
subunits (profits centres, divisions and subsidiaries)? </text>
<qualifier>in 2004 </qualifier>
<specifier>Linkages between subunits....</specifier>
<subQuestion varName = "SULKPRO4">
<text>production linkages</text>
</subQuestion>
<subQuestion varName="SULKRD04">
<text>to share research and development knowledge</text>
</subQuestion>
<subQuestion varName= "SULKMA04">
<text>to share marketing information</text>
</subQuestion>
<subQuestion varName= "SULKKAD04">
<text> to coordinate joint promotional an/or advertising campaigns</text>
</subQuestion>
<subQuestion varName= "SULKDSO4">
<text>to use common distribution channels</text>
</subQuestion>
<subQuestion varName= "SULKSKO4">
<text>to share skills and resources (eg technical personnel)</text>

```

```

</subQuestion>
<response varName="19">
<fixed>
<category>
<label>None</label>
<value>1</value>
</category>
<category>
<label>Little</label>
<value>2</value>
</category>
<category>
<label>Moderate</label>
<value>3</value>
</category>
<category>
<label>Much</label>
<value>4</value>
</category>
<category>
<label>Great</label>
<value>5</value>
</category>
</fixed>
</response>
</question>

```

(4) Questions which have free responses

As outlined above questions can have what we have called free responses, where it usually requires the interviewer to type in the response of the respondent.

For example: How many adults do paid work in your household? Or what is the name of your organization?

These questions may look as follows;

```

<question>
<text>What is the name of your organization?</text>
<response varName= "Orgname">
<free>
<format>text</format>
<length>48</length>
</free>
</response>
</question>

```

```

<question>
<text>If yes how many adults do paid work in your household?</text>

```



```
<response varName="c2">
<free>
<format>integer</format>
<length>3</length>
</free>
</response>
</question>
```

Example 2: What percentage of your total sales (in terms of value) was traded within the firm between subunits?

These questions may look as follows;

```
<question id= "20">
<text> What percentage of your total sales (in terms of value) was traded
within the firm between subunits? </text>
<subQuestion varName= "SALETR04">
<text>2004</text>
</subQuestion>
<subQuestion varName= "SALETR00">
<text>2000</text>
</subQuestion>
<response varName= "20">
<free>
<format>integer</format>
<length>3</length>
<label>%</label>
</free>
</response>
</question>
```

Example 3: Ideally in a typical year how much would be appropriate to spend on external research training activities for all staff in your area?

The question may look as follows;

```
<question>
<text>Ideally in a typical year how much would be appropriate to spend on
external research training activities for all staff in your area?<text>
<response varName="annbudge">
<free>
<format>currency</format>
<length>6</length>
<label>AUD</label>
</free>
</response>
</question>
```

(5) Question with a fixed and free response

As discussed above some questions may allow the interviewer to select the response of the respondent and may also have an option to type in the respondents response if it does not fit into any of the fixed response categories.

Example of such a question: What is your postcode? Interviewer will be able to select from 3 choices listed on the screen: 6030, 6036 (the fixed responses) and other (the free response).

This question may look as follows;

```
<question>
<text>What is your postcode?</text>
<directive>
<position>after</position>
<text>if respondent unsure, read the postcodes</text>
<administration>interviewer</administration>
</directive>
<response varName= "postcode">
<fixed>
<category>
<label>6030</label>
<value>1</value>
</category>
<category>
<label>6036</label>
<value>2</value>
</category>
<category>
<label>Other</label>
<value>3</value>
<contingentQuestion varName= "pcodeo">
<text>please specify the postcode</text>
<length>4</length>
</contingentQuestion>
</category>
</fixed>
</response>
</question>
```

(6) One Question that has two subquestions and the same response category

One question may require the respondent to provide two answers for example by reference to a year.

For example the question: How many senior managers reported directly to the CEO with no intervening level in 2000 and 2004?

This question may look as follows;

```

<question id = "7">
<text> How many senior managers reported directly to the CEO with no
intervening
level? </text>
<subQuestion varName= "SENMAN04">
<text>2004</text>
</subQuestion>
<subQuestion varName= "SENMAN00">
<text>2000</text>
</subQuestion>
<response varName= "7">
<free>
<format>integer</format>
<length>3</length>
</free>
</response>
</question>

```

(7) Matrix Questions

Example 1: Considering the following areas what level of research training is currently available for your staff? The answer lists 8 different areas to which you rate the level of research training. These are;

	Very High	High	Average	Low	Very Low
Research Design	1	2	3	4	5
Sampling	1	2	3	4	5
Data collection techniques	1	2	3	4	5
Measurement	1	2	3	4	5
Qualitative analysis	1	2	3	4	5
Quantitative analysis	1	2	3	4	5
Project management	1	2	3	4	5
Research skills	1	2	3	4	5

The question will look as follows;

```

<question>
<text>Considering the following areas what level of research training is
currently available for your staff</text>
<subQuestion VarName="sresedes">
<text>Research Design</text>
</subQuestion>
<subQuestion varName="ssamplin">
<text>Sampling</text>
</subQuestion>
<subQuestion varName="sdatacol">
<text>Data Collection Techniques</text>
</subQuestion>
<subQuestion varName="smeasur">

```

```

<text>Measurement</text>
</subQuestion>
<subQuestion varName="squalana">
<text>Qualitative analysis</text>
</subQuestion>
<subQuestion varName="sprojman">
<text>Project management</text>
</subQuestion>
<subQuestion varName="sresskil">
<text>Research skills</text>
</subQuestion>
<response varName="">
<fixed>
<category>
<label>Very Low </label>
<value>1</value>
</category>
<category>
<label>Low</label>
<value>2</value>
</category>
<category>
<label>Average</label>
<value>3</value>
</category>
<category>
<label>High</label>
<value>4</value>
</category>
<category>
<label>Very High</label>
<value>5</value>
</category>
</fixed>
</response>
</question>

```

Example 2: How important are the following considerations in the design and delivery of research training programs?

The answer lists 8 different considerations. These are;

	Very Important	Important	Neutral	Not important	Not at all
Offered intensively	1	2	3	4	5
Offered semester	1	2	3	4	5
Experienced instructors	1	2	3	4	5
Opportunities to mix	1	2	3	4	5
State art computer fac	1	2	3	4	5
Reflects trends	1	2	3	4	5
Provision notes	1	2	3	4	5

The question will look as follows;

```
<question>
<text>How important are the following considerations in the design and
delivery of research training programs?</text>
<subQuestion varName="intensive">
<text>Offered intensively</text>
</subQuestion>
<subQuestion varName="semester">
<text>Offered over a semester</text>
</subQuestion>
<subQuestion varName="expinstr">
<text>taught by experienced instructors</text>
</subQuestion>
<subQuestion varName="compfac">
<text>Use of state of the art computer facilities</text>
</subQuestion>
<subQuestion varName="curtrend">
<text>Reflect current trends and advances in research design and
methodology</text>
</subQuestion>
<subQuestion varName="provnote">
<text>Provision of detailed notes to attendees by the instructor</text>
</subQuestion>
<subQuestion varName="sercours">
<text>Provide opportunities for incremental learning by offering a series of
courses at the introductory, intermediate and advanced levels</text>
</subQuestion>
<response varName="">
<fixed>
<category>
<label>Not important at all </label>
<value>1</value>
</category>
<category>
<label> Not important
<value>2</value>
</category>
<category>
<label>Neutral</label>
<value>3</value>
</category>
<category>
<label>Important</label>
<value>4</value>
</category>
<category>
<label>Very important
```

```
<value>5</value>
</category>
</fixed>
</response>
</question>
```

(8) Questions with subquestions which require you to select all categories that apply

Research Training Areas. Please select all that apply.

Research Design

Survey Research (1)
Experimental Design (2)
Case study Research (3)
Designing qualitative studies (4)

Data Collection

Sample Design (1)
Questionnaire Design (2)
Interview Techniques (3)
Focus Groups (4)
Observational techniques (5)
Use of advanced technologies (6)

The question may look as follows;

```
<section>
<sectionInfo>
<position>title</position>
<text>Research Training Areas</text>
<administration>self</administration>
</sectionInfo>
<question>
<text>Research Design</text>
<response varName="trainare">
<fixed>
<category>
<label>Survey Research</label>
<value>1</value>
</category>
</fixed>
</response>
<response varName="exdesign">
<fixed>
<category>
<label>Experimental Design</label>
```

```
<value>2</value>
</category>
</fixed>
</response>
<response varName="qualstud">
<fixed>
<category>
<label>Designing qualitative studies</label>
<value>4</value>
</category>
</fixed>
</response>
</question>
<question>
<text>Data Collection</text>
<response varName="sampdes">
<fixed>
<category>
<label>Sample Design</label>
<value>1</value>
</category>
</fixed>
</response>
<response varName="quesdes">
<fixed>
<category>
<label>Questionnaire Design</label>
<value>2</value>
</category>
</fixed>
</response>
<response varName="intertec">
<fixed>
<category>
<label>Interview techniques</label>
<value>3</value>
</category>
</fixed>
</response>
<response varName="focusgro">
<fixed>
<category>
<label>Focus groups</label>
<value>4</value>
</category>
</fixed>
</response>
<response varName="obsertec">
<fixed>
<category>
```

```
<label>Observational techniques</label>
<value>5</value>
</category>
</fixed>
</response>
<response varName="advantec">
<fixed>
<category>
<label>Use of advanced technologies</label>
<value>6</value>
</category>
<fixed>
</response>
</question>
</section>
```

WORKING WITH TAGS AND ELEMENTS IN DIFFERENT VIEWS

Authentic View

Authentic view is a graphical representation of your XML document. It enables XML documents to be displayed without mark up and with appropriate formatting and data entry fields such as boxes and buttons.

If an XML file is open you can switch to authentic view by clicking the Authentic button at the bottom of the document window.

Text View (recommended)

In text view you can type in your document text directly ie markup and content.

You can switch to text view by clicking the Text button at the bottom of the document window or you can select the menu item View/Text view. You now see the XML document in its raw form (with syntax coloring).

Among the main features of this view are the following:

- (1) visual features help you read the document more easily like indentation and customizable fonts.
- (2) Context sensitive entry helpers which list allowed elements, attributes, and entities at the cursor insertion point and allow you to insert these into the document
- (3) Drag and drop, copy and paste capabilities.

Editing XML Documents in Text View

Start-tag and end-tag matching

When you place the cursor inside a start or end tag of an XML element, clicking Ctrl+E highlights the other member of the pair. Clicking Ctrl+E also enables you to switch between the start and end tags.

Editing

If you are working with an XML document based on a schema, XML Spy 2005 provides you with various editing capabilities in text view. These allow you to quickly insert the correct element, attribute, etc according to the content model defined for the element you are currently editing.

This may work as follows;

1. Type < (less than character) where you want to insert an XML element. This opens a popup list containing all the elements that may legitimately be inserted at that point.
2. Enter the first few characters of the element you want to insert and an element popup list containing those characters is highlighted.
3. Click on the entry with the mouse pointer or press enter to select the selected choice.

The popup window will also appear in the following cases;

1. If you press the space bar when the cursor is b/w an element's tags and if an attribute is defined for that element. The popup will contain all the available attributes
2. when the cursor is within the double quotes delimiting an attribute value that has enumerated values. The popup will contain the enumerated values.
3. When you type </ (signifies start of closing tag) the name of the element to be closed appears in the popup.

WELL FORMED AND VALID XML DOCUMENTS

As long as you spell the tags correctly, use both start tags and end tags, and obey all other rules its good XML.

XML documents fall into one of two categories;

1. well-formed documents or
2. valid documents

(A) Well-formed XML Document

Every XML document must be well-formed.

XML Spy 2005 checks for well-formedness whenever a document is opened or saved, or when the view is changed from Text to any other view.

A well-formed document will contain no syntax errors and satisfies the specifications for XML code.

The purpose of well formedness constraints is to ensure that an XML document can be accurately read by an XML processor to produce an element tree with properly defined attributes and values. If a document is not well formed then this process cannot be done reliably.

(B) Valid XML Document

The validate command enables you to validate XML documents against schemas. Validation is automatically carried out when you switch from text view to any other view.

You can specify that a document be automatically validated when a file is opened to saved (F8 or Tools/Options/File).

(C) How To Test That A Document Is Well Formed And Valid

1. Click on the XML menu bar and then click Check well-formedness (F7)
2. If the well-formedness check succeeds a brief message will be displayed at the bottom of the main window. If an error is encountered during the well-formedness check the source of the problem, it will be highlighted on the screen and a corresponding error message is shown.
3. It is generally not permitted to save a malformed XML document but XML Spy 2005 gives you a Save Anyway option. This is useful when you want to suspend your work temporarily (in a not well-formed condition) and resume it later.

4. If the well-formedness check succeeds XML Spy will then indicate that you should validate the document (F8).
5. Click XML on the menu bar and then click validate.
6. If a document is valid, a successful validation message is displayed at the bottom of the main window.
7. If a file is invalid there is an error an error message at the bottom of the page will give you a clue as to the nature of the error.

NB: After each question you have written you should check that the document is well formed and valid. You will lose your prompts if there are too many errors in the document.

For example: This piece of text would fail on three counts;

equation<a <b <equation>

1. The start tag is spelled incorrectly because it has two left brackets instead of a left and a right.
2. There is a left bracket in the content of the element, which is illegal.
3. The end tag of the element is missing a slash. This is not well formed XML.

SAVING

Select the menu option File/Save As...and name the XML document.

Please note that the document does not have to be valid in order to save it. Saving an invalid document causes a prompt to appear which then allows you to select "Save Anyway" the document is then saved in its current state.

SCHEMA

You will not be required to create the schema that is the framework within which the survey must be typed. However it is useful to have an idea of what they are and how they work.

A schema describes that one or more XML documents can look like and defines:

1. the elements the document contains and the order in which they appear
2. the element content and element attributes if any

The schema is the Shepherd of the markup languages. They keep documents from straying outside the herd and causing trouble. Schema will catch major errors in the document. Well-formedness rules can protect from basic errors in syntax but if a field of information is missing or date entered in wrong format this will be picked up.

For example a schema on a restaurant menu would be the list of dishes available.

For example the diagram below is the rough outline of a schema. The schema has been created so that it must contain the following elements (indicated by the solid lines):

- title
- investigator
- data collector
- section

The schema has been designed so that it is optional whether to include (indicated by the dotted lines);

- questionnaire information
- within Investigator organization, address, phone number etc is optional
- within question qualifier, specifier, directive and subquestion are optional
- within response it can be seen that free and fixed are optional

In the free response category you will note that format and length are compulsory and label, min and maximum are optional. When the schema is written the programmer will have put limits on what can be contained in these elements.

For example with format this may be limited only to an integer that is a number, so when you are typing a free response you can only enter a number in the format element and not text for example.