

# Reference Manual

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**uASQ™**

**Version 1**

**Noldus**  
Information Technology

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Documentation: Leanne Loijens, Olga Krips.

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**Noldus Information Technology bv**

International headquarters

Wageningen, The Netherlands

Telephone: +31-317-473300

Fax: +31-317-424496

E-mail: [info@noldus.nl](mailto:info@noldus.nl)

For addresses of our other offices and support, please see our website [www.noldus.com](http://www.noldus.com).

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# 1 Introduction

## WHAT IS UASQ?

uASQ is a questionnaire tool which is integrated in The Observer XT. uASQ has been designed for situations in which a test leader presents questions to one test participant at a time. The participant will see the questions on his/her computer screen. You can use uASQ in different types of situations. For instance, in a usability test to ask the test participant questions about his experience while carrying out a number of computer tasks. You can also use uASQ in sensory tests when a test participant is trying a number of products.

uASQ allows you to define different types of questions: multiple choice questions (either with nominal or numerical answers), Likert Scale questions and open ended questions. You can present your questions to the test participant while carrying out an observation. When you finish coding and stop the observation, The Observer XT creates an Event log with the test participant's answers.

Please note that you cannot define questions or analyze the answers with uASQ if The Observer XT on that computer works with Coder license. To check what kind of license you have, choose **Help > About The Observer XT > License Info**. Your licenses are listed. The type of license is specified in the hardware key plugged in that computer.

## INFORMATION ABOUT THE OBSERVER XT

We assume that you are familiar with the procedures of The Observer XT. The Observer XT Help can be accessed with the shortcut on the desktop of computer with The Observer XT. It is also available on The Observer XT installation USB stick. Copy the folder to your computer and open the file **Index.html**. You can download all documentation for The Observer XT and uASQ on [www.noldus.com/downloads](http://www.noldus.com/downloads).

## 2 Installation

The uASQ software consists of two parts: software to install on the test leader's PC (see below) and software to install on the PC of the test participant (see page 7).

### INSTALLING THE SOFTWARE ON THE TEST LEADER'S PC

Before installing the uASQ software on the test leader's PC, make sure that The Observer XT software is installed. Insert the installation USB stick into a USB port of your computer and run the file **Observer XT 15 Setup.exe**. Then, follow the instructions on your screen.

If you ordered a PC from Noldus Information Technology when you purchased The Observer XT and uASQ, the software is already installed, so you can skip this section.

1. Insert The Observer XT installation USB stick into a USB port of the computer with The Observer XT.
2. Run the file **uASQ setup for The Observer PC.exe** that is present in the folder **Drivers and Tools\uASQ**.
3. uASQ requires that Microsoft .NET Framework 4.5 is installed. If .NET Framework is not on your computer, you must install it as part of the uASQ installation. Click **Install**.

If you are installing uASQ from the Noldus website, your computer will download .NET from the Microsoft website.

4. When the .NET Framework installation is ready, a **Welcome** screen appears. Click **Next**.
5. A window appears with the message that the installation wizard is ready to install the program. Click **Install**.
6. When the installation is ready, a window appears with the message that uASQ has been installed successfully. Click **Finish**.

## INSTALLING THE SOFTWARE ON THE TEST PARTICIPANT'S PC

1. Insert The Observer XT installation USB stick into a USB port on the computer of the test participant.
2. Run the file **uASQ setup for the Test PC.exe** that is present in the folder **Drivers and Tools\uASQ**.
3. uASQ requires that Microsoft .NET Framework 4.5 is installed. If .NET Framework is not on your computer, you must install it as part of the uASQ installation. Click **Install**.

If you are installing uASQ from the Noldus website, your computer will download .NET from the Microsoft website.

4. When the .NET Framework installation is ready, a Welcome screen appears. Click **Next**.
5. A window appears with the message that the installation wizard is ready to install the program. Click **Install**.
6. When the installation is ready, a window appears with the message that uASQ has been installed successfully. Click **Finish**.

On the test PC, uASQ is located on:

**C:\Program Files (x86)\Noldus\uASQ 1**

## 3 Setting up your project

Before you start setting up your questionnaire, you must set up your project on the test leader's PC and make a connection with the test PC. Setting up your project includes selecting your observation sources and observation method and defining your coding scheme and independent variables.

### PROJECT SETUP

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Start uASQ on the test PC before you start The Observer XT on the test leader's computer.

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Start The Observer XT on the test leader's PC and create a new project or open an existing one.

Click **Set up project** in the window that appears on your screen.

#### *Selecting your observation method*

Under **Observation method** select **Continuous Sampling**. With this recording method all occurrences of the behaviors of interest of the test participant are recorded.

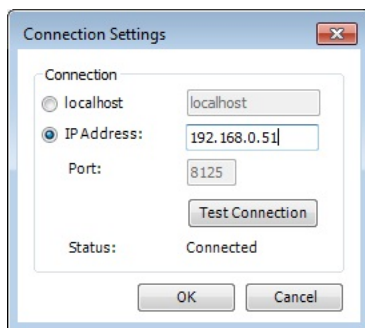
#### *Selecting your observation sources and making a connection with the test PC*

If you plan to record video with MediaRecorder from a video camera connected to your computer or to record the screen of the test PC, connect the devices before starting The Observer XT. See the MediaRecorder Help how to set up the Observation Source in The Observer XT in such a way that video recording is controlled with commands from The Observer XT. Videos created in this way are synchronized automatically with the events.

To make a connection between the test computer and the test leader's PC, do the following:



1. Start uASQ on the test PC.
2. In The Observer XT on the computer of the test leader, click **Project Setup.** and under **Observation source** select **Live Observation.**
3. In the **Devices** window, double-click **uASQ** in the list of devices or select the check box and click **Edit settings** at the bottom of the table. The **uASQ Manager** window opens.
4. Click **Connection Settings** in the menu. The **Connection Settings** window opens.



**Figure 1** The **Connection Settings** window. **localhost** means that the test leader's and participant's computer is the same computer.

5. Enter either the name or the IP address of the test participant's computer. The port number is disabled for editing.

If you work in a network environment in which IP addresses are dynamically assigned, the IP address will be different every time you connect to the network. It may be easier to fill in the computer name in the Connection Settings window as this does not change.

#### ***Where to find the computer's name?***

Open Windows Explorer and click the drive **Computer**. Next, click **System Properties**. The computer name is listed under Computer name, domain, and workgroup settings.

### ***Where to find the computer's IP address?***

Open the Control Panel and then **Network and Sharing Center**. Click the ethernet connection next to **Connections** and then click **Details**. The **Network Connections Details** window opens, listing the IP address.

6. You can test the connection by clicking the **Test Connection** button.



To connect the test leader's computer to the test PC, both computers must be part of the same network. This can also be a non-local network, the test leader and the participant can be in different offices as long as they are part of the same network. If the participant is behind a router you have to forward your IP to port 8125.

Ask your network administrator for help if needed. The port may be blocked by a firewall. If this is the case, your network administrator needs to make exceptions for uASQ and this port. If this is not possible or does not work, you must assign another port.

To change the port, first create an The Observer XT project with settings for uASQ (see page 8) and then close The Observer XT and uASQ on both The Observer XT PC and the test PC. Then:

- **On The Observer XT PC** – Open the following file with Notepad:  
`c:\Users\Public\Documents\Noldus\The Observer XT\Projects\<project name>\Plugins\uASQ\default.qsx`.  
Change the port number in the row `<Port>8125</Port>`.
  - **On the uASQ PC** – Open the following file with Notepad:  
`c:\Program Files (x86)\Noldus\uASQ 1\Noldus.QT.QuestionnaireGUI.exe.config`.  
Change the port number in the following rows:  
`<setting name="m_nPort" serializeAs="String">  
    <value>8125</value>  
</setting>`
-

## SETTING UP YOUR CODING SCHEME

The coding scheme is the set of elements that you plan to record manually. Define behaviors and (optionally) modifiers. Do not define any subjects (see below).

On the test leader's PC, in the Project Explorer, under **Setup**, click **Coding Scheme** to open the (empty) coding scheme or press **Alt+F5**.

### ***Subjects***

uASQ has been designed for situations in which there is a connection between the test leader's PC and one test PC. You can do tests with a series of test participants and invite them one at a time.

Do not define any subjects. You can enter the subject name or identity in uASQ before you start an observation (see Section 5). This subject will be added to your coding scheme. Define an independent variable *subject name* or *subject identity* (see page 12).

### ***Behaviors***

Behaviors are tasks, events, actions and emotional expressions of the subjects under investigation that are relevant for your research question. Behaviors must be organized in groups. You can define, for example, a group of different tasks, a group of usability issues (Navigation, User error, etc.), and a group of emotional responses (Neutral, Positive, Confused, etc.).

Behaviors can be either mutually-exclusive states, start-stop states or point events. See below for an example of a behavior group in a coding scheme.

Behaviors				
Add Behavior group...		Add Behavior		
Behavior Name		Behavior Type	Modifiers	
Usability issues	(Start-Stop)			
Usability issue	u	Point Event	< Click here	
Navigation	n	Point Event	< Click here	
User error	s	Point Event	< Click here	
System error	y	Point Event	< Click here	
Other problem	o	Point Event	< Click here	
User question	e	Point Event	< Click here	
User remark	r	Point Event	< Click here	

## Modifiers

Modifiers can be attached to behaviors. They are used to limit the scope of a behavior or to specify a behavior more precisely. Modifiers can be either nominal or numerical, and must always be organized in groups. You can define, for instance, a modifier group *Subtasks* and attach it to the behavior group *Tasks* or a modifier group *Intensity* and attach it to the behavior group *Emotional responses*.



For more information about defining a coding scheme, see **Coding Scheme** in The Observer XT Help.

## DEFINING INDEPENDENT VARIABLES

Independent variables describe your subjects, observation sessions and environmental conditions. Examples of independent variables are the name/identity of your subjects, their age or computer experience or the version of the software being tested by the test participant.

In the Project Explorer click **Independent Variables**. Click **Add Variable** to add a new variable. Enter a name and choose the variable format (for example, *Numerical* for the age variable).

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For more information about defining independent variables, see **Independent Variables** in The Observer XT Help.

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## 4 Setting up your questionnaire

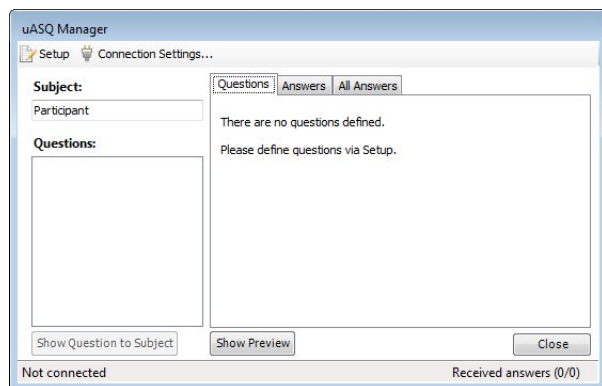
This chapter explains how to define your questions and how to pre-define answers. It also explains what presentation methods you can choose from. You can define different types of questions: multiple choice questions (either with nominal or numerical answers), Likert Scale questions and open ended questions. uASQ also supports the use of Chinese simplified characters, Japanese characters and Cyrillic characters.

The questions that you define in your questionnaire will automatically be added to the coding scheme after you have carried out an observation.

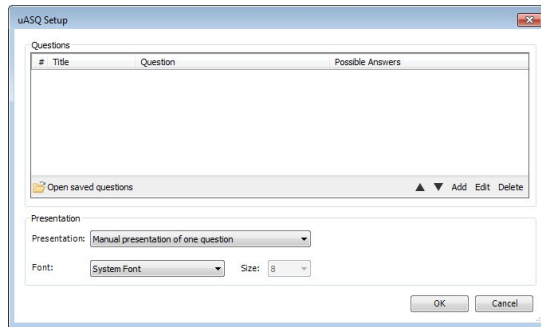
### DEFINING YOUR QUESTIONS

Follow the steps below to open the uASQ Manager window and define your questions:

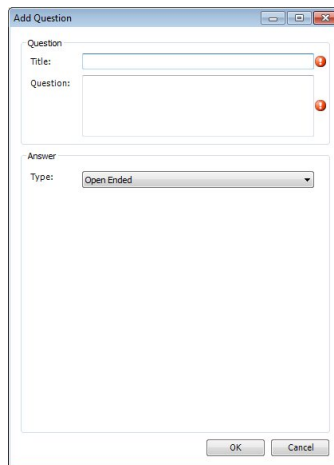
1. Start The Observer XT on the test leader's PC and open your project.
2. In the Project Explorer click **Project Setup**, then click the **Devices** button and in the list of devices double-click **uASQ**. The **uASQ Manager** window opens.



3. Click **Setup**. The **uASQ Setup** window opens.



4. Click **Add** to enter a question. The **Add Question** window opens.

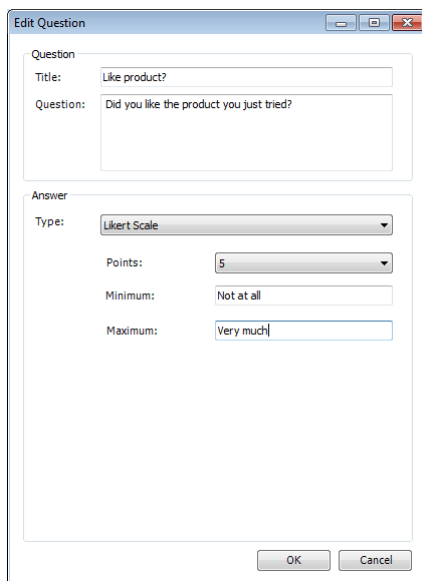


Note: You can define up to 10 questions per questionnaire.

5. Under **Question**, enter a **Title** for the question and the **Question** itself that will be presented to the test participant.

Limitations - The question titles must have unique names. Names are limited to 64 characters. Try to make the questions as short as possible. You normally do not want your test participants to read long pieces of texts.

6. In the **Answer** field select the format of the question:
  - **Likert Scale** — A Likert Scale allows test participants to specify their level of agreement to a statement. You must specify the number of **Points** and the **Minimum** and **Maximum**. In the example below the number of points is 5, 'not at all' has been defined as the minimum and 'very much' as the maximum.



The screenshot shows a window titled "Edit Question". It is divided into two main sections: "Question" and "Answer".

In the "Question" section, there are two text input fields. The "Title:" field contains the text "Like product?". The "Question:" field contains the text "Did you like the product you just tried?".

In the "Answer" section, there are four controls:

- A "Type:" dropdown menu with "Likert Scale" selected.
- A "Points:" dropdown menu with the value "5" selected.
- A "Minimum:" text input field containing the text "Not at all".
- A "Maximum:" text input field containing the text "Very much".

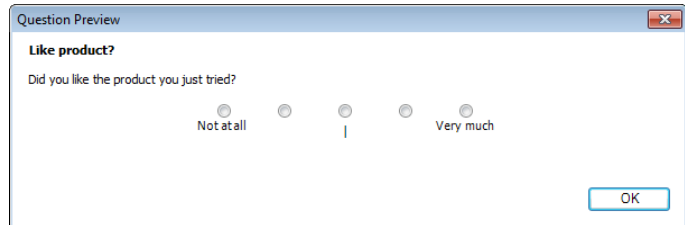
At the bottom of the window, there are two buttons: "OK" and "Cancel".

**Figure 2** Example of a Likert Scale type of question.

The minimum number of points is 2, the maximum is 9. The default value is 3. Limit the number of characters for the 'minimum' and 'maximum' as much as possible, otherwise they are not readable



on the test participant's screen. Figure 3 shows what the question looks like when it is presented to the test participant.



**Figure 3** *Preview of Likert Scale type of question.*

- **Multiple Choice** — When you select this option you can define a list of answers, either

- **Nominal Answers**, for example in a sensory test with a new kind of candy, you may want to ask the following question: 'You just indicated that you did not like the product. Why?'. Possible answers could be 'not sweet enough', 'too sweet', 'too sticky', 'too hard'.

Click the up and down arrows to put the answers in the order you prefer.



To delete one or more answers, select them and click **Delete**.

Select the **Allow multiple answers** check box to allow the test participant to select more than one answer. In the example above, a participant may want to select the options 'too sweet' and 'too sticky'.

**Limitations** - The answers are limited to 64 characters. The maximum number of predefined answers is 10, the minimum is 2.

The screenshot shows a software window titled "Edit Question". It is divided into two main sections: "Question" and "Answer".

**Question Section:**

- Title:** Why don't you like it?
- Question:** You just indicated that you did not like the product. Why?

**Answer Section:**

- Type:** A dropdown menu is set to "Multiple Choice (≤10 answers)".
- Options:** Two radio buttons are present: "Nominal answers" (which is selected) and "Numerical answers".
- Possible Answers:** A list box contains five text entries: "Too sweet", "Not sweet enough", "Too sticky", "Too hard", and an empty field. The "Too hard" entry is currently selected and highlighted in blue.
- Buttons:** At the bottom of the list box are three small icons: an upward arrow, a downward arrow, and a button labeled "Add". To the right of the list box is a button labeled "Delete".
- Checkboxes:** Below the list box is a checkbox labeled "Allow multiple answers", which is currently unchecked.
- Final Buttons:** At the bottom of the dialog are two buttons: "OK" and "Cancel".

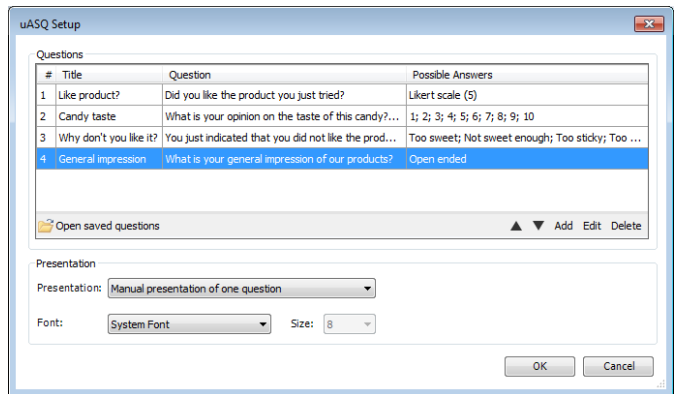
**Figure 4** *Example of a multiple choice question with nominal answers.*

- **Numerical Answers**, for example in the sensory test above, you may want to ask the test participants to rate the new kind of candy on a scale from 1 to 10 (1 = very bad; 10 = excellent). Define 1 - 10 as the possible answers.

Limitations - The maximum number of answers is 10, the minimum is 2.
- **Open Ended** — When you select this option, the test participants can enter free text. For instance, for the question 'What is your general impression of our products?'.

Limitations - The maximum number of characters that the test participant can enter is 255.

7. Click **OK** when the question/answers are ready. The question with its possible answers appears in the **uASQ Setup** window.



**Figure 5** The **uASQ Setup** window with a list of four questions.

8. If you like, you can change the font and the font size of the questions/answers.
9. Click **Add** to define the next question.

### ***Changing the order of questions***

Select the appropriate question in the **uASQ Setup** window and use the up and down arrows to put it earlier or later in the sequence of questions.



### ***Editing questions***

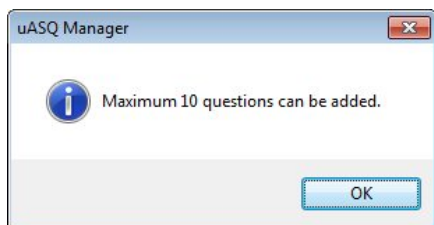
Select the appropriate question in the **uASQ Setup** window and click **Edit** to change the question itself, its title or its possible answers. Do not edit any questions after you have run a questionnaire. This will lead to extra coding scheme elements.

### ***Deleting questions***

Select the appropriate question in the **uASQ Setup** window and click **Delete**.

### ***Maximum number of questions***

You can define up to 10 questions in a questionnaire. When 10 questions are defined and you click the **Add** button, you get the following message:



Click **OK** to return to the **uASQ Setup** window.

## **DEFINING HOW TO PRESENT QUESTIONS**

You can present your questions in several ways, either manually or automatically. Open the **uASQ Setup** window (see steps 1-3 in section 4.1) and from the **Presentation** drop-down list, select one of the following options:

- **Manual presentation of one question** — When you select this option, the **Show Question to Subject** button is available during data acquisition. The test leader selects which question he/she wants to present and when he/she clicks the **Show Question to Subject** button, the question appears on the test participant's screen. The test leader must repeat this procedure for each question he/she wants to present.

- **Manual presentation of all questions** — With this option selected, clicking the **Show all Questions to Subject** button, presents the first question to the test participant. After the test participant has answered the first question, the next question will pop up automatically.
- **Automatic presentation of all questions after** — This option allows you to set a time (in hours:minutes:seconds after the start of the observation) at which to present the first question to the test participant. After the test participant has answered this question, the next question will pop up automatically.

When you are ready defining your questions, click **OK**.

### *Pre-viewing your questions*

In the **uASQ Manager** window, select a question from the list and click the **Show Preview** button to see what the question looks like on the test participant's screen.

## **USING AN EXISTING QUESTIONNAIRE**


If you used uASQ in another project and have an existing list of questions, you can open this list and use it in a new project.

1. Create a new project. In the Project Explorer click **Project Setup**, then click the **Devices** button and in the list of devices double-click **uASQ**. The **uASQ Manager** window opens.
2. Click **Setup**. The **uASQ Setup** window opens.
3. Click **Open saved questions** and browse to the folder of the project which contains the questionnaire:  
C:\Users\Public\Public Documents\Noldus\The Observer XT\Projects\- 4. Select the file 'default.qsx' and click **Open**. The questionnaire opens in the new project.

## 5 Presenting questions to the test participant

You can present your questions to the test participant while carrying out an observation. When you finish coding and stop the observation, The Observer XT creates an Event log with the test participant's answers. The questions in your questionnaire are automatically added to the coding scheme.


### CARRYING OUT AN OBSERVATION

Before you start an observation and present questions to the test participant, you must start uASQ on the test PC. The uASQ icon will appear in the Windows task bar. 

1. On the test leader's PC click **Observations** in the Project Explorer, then click **Create a new observation** in the window that appears.
- 2 In the **Observation Properties** window, check that there is a connection with the test PC. Click the **Devices** tab. In the **Status** column for **uASQ**, check that the status is **Connected**.

If there is no connection, follow the steps on page 6 to set up a connection.

3. Click the **General** tab and enter a name for the observation or accept the default one. Then click **OK**. The observation screen opens with on top the **uASQ Manager** window.
- 4 Hide the **Subject** column: right-click the **Subject** header and deselect **Subject**.
- 5 In the **Subject** field of the **uASQ Manager** window, enter the name or identity of the test participant.

- 6 When the test participant is ready, click the **Start Observation**  button. If you control video recording with MediaRecorder with commands from The Observer XT, make sure MediaRecorder has opened completely before you press the **Start Observation** button.

If you have defined independent variables in your project setup and you chose to edit them before the observation, the **Enter Independent Variables** values window displays. Note: this window may be hidden underneath the **uASQ Manager** window. Enter the values for each independent variable, and click **OK**.

- 7 You can now log events, either by clicking the names in the **Codes** window, or by pressing the corresponding keys that you defined in the coding scheme.

Make sure that the **Codes** window is active if you use the keys on your keyboard for coding. You can make the **Codes** window active, by clicking its title bar.

To log qualitative data, such as notes on what the participant says, or problems he/she encounters, log an appropriate event (for instance, 'User remark') and type in your notes in the cell under **Comment**.

— *If you selected 'Manual presentation of one question'*

If you selected this option when you set up the questionnaire, the **Show Question to Subject** button is available in the **uASQ Manager** window. It will be enabled when you start the observation. Select the appropriate question in the list of questions in the **uASQ Manager** window and click the **Show Question to Subject** button when you want to present the question to the participant. Repeat this procedure for each question you want to ask.

— *If you selected 'Manual presentation of all questions'*

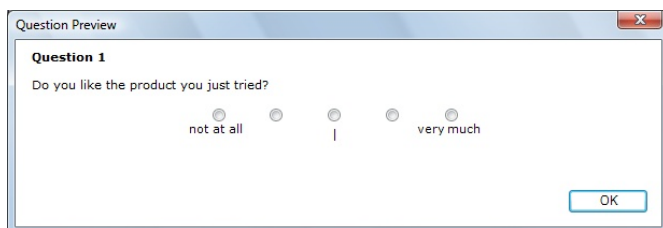
If you selected this option, the **Show all Questions to Subject** button will be enabled when you start the observation. Click the button when you want to present your questions to the test participant. The participant will see the first question on his/her screen. When the participant answers the question and clicks **OK**, the second question will appear.

— *If you selected ‘Automatic presentation of all questions’*

If you selected this option, the **Show Question to Subject** button will not be enabled. Your questions will be presented automatically at the time you specified in the set-up. When the participant answers the first question and clicks **OK**, the second question will appear.

8. When the test participant answers the first question and clicks **OK**, the **Answers** tab in the **uASQ Manager** window on the test leader’s PC opens showing the title of the question, the time stamp at which the participant clicked **OK** and the answer of the participant. Click the **All Answers** tab to view all the answers which the test participant has given so far.

For Likert Scale questions, the point number which the participant selects appears. For instance, if the participant selects the point next to ‘very much’ in the question below, ‘4’ will appear on the **Answers** tab.

A screenshot of a 'Question Preview' window. The window has a title bar with 'Question Preview' and a close button. Inside, it says 'Question 1' and 'Do you like the product you just tried?'. Below the text are five radio buttons arranged horizontally. The first is labeled 'not at all', the second is labeled '1', the third is unlabeled, the fourth is labeled '4', and the fifth is labeled 'very much'. At the bottom right is an 'OK' button.

**Figure 6** Example of a Likert Scale question with 5 points.

9. To stop data logging (and video recording), click the **Stop Observation** button.



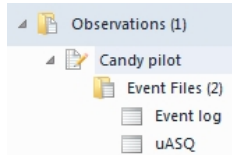
A message will appear asking you whether you are sure you want to stop the observation. Click **Yes**.

Note: The message may be hidden underneath the **uASQ Manager** window.

The uASQ data are saved in an event log with the name **uASQ**. This event log is stored in the observation together with the event log with



manually coded events (**Event log**). See page 25 for information about what the uASQ event log looks like.



For more information about carrying out an observation, see **Carry out an Observation** in The Observer XT Help.

## WHAT DOES THE EVENT LOG LOOK LIKE?

Time	Subject	Behavior	Modifier	Comment
0.00	<b>Start</b>			
7.67	Participant 2	Like product?	5.000	
13.19	Participant 2	Candy taste	10.000	
18.94	Participant 2	Why don't you like it?	too sticky	
24.83	Participant 2	General impression		Much too sweet
33.03	<b>Stop</b>			

**Figure 7** *An example of a uASQ Event log.*

The event log with uASQ data contains the following columns:

- **Time** with the timestamps of the answers (the time at which the test participant clicked **OK** after answering a question).
- **Subject** with the name or identity of the subject.
- **Behavior** with the question Titles.

- **Modifier** — The information in this column depends on the type of question you presented:
  - **Likert scale** question: the **Modifier** cell contains the point number of the answer which the participant selected. For example, if the participant selected the point in the middle in the question in Figure 6, '3' will appear in the event log.
  - **Multiple Choice - Nominal answers** question: the **Modifier** cell contains the answer of the test participant. For example, if the question is 'You just indicated you did not like the product. Why?' and the answer is 'too sticky', then 'too sticky' will appear in the **Modifier** cell for this question. If multiple answers are allowed, there are multiple **Modifier** cells for the question, each with one answer.
  - **Multiple Choice - Numerical answer** questions: the **Modifier** cell contains the answer of the test participant. For example, if you ask the test participant to rate a new type of candy on a scale from 1 - 10 and the answer is 5, then '5' will appear in the **Modifier** cell for this question.
  - **Open Ended** question: the **Modifier** cell is empty.
- **Comment** column — The column contains the answers to the **Open Ended** questions. For **Likert scale** questions and **Multiple Choice** questions the cells are empty.

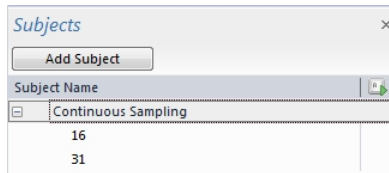
## WHAT DOES THE CODING SCHEME LOOK LIKE?

When you finish coding and stop the observation, the questions in your questionnaire are automatically added to your coding scheme. The uASQ coding scheme elements do not have key codes. It is, therefore, not possible to re-code them.

### *Subjects*

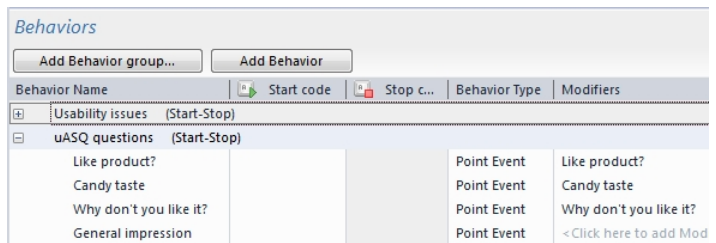
The **Subjects** panel lists the names/identity of the subjects which you entered before you started the observation. If you observed the test

participants 16 and 31, these numbers will be listed in the **Subjects** panel.

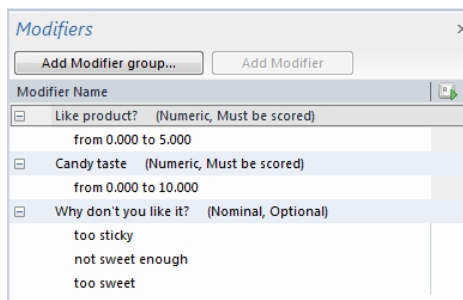


### Behaviors

The **Behaviors** panel lists the titles of the questions in your questionnaire. They are defined as Point Events and organized in a Start-Stop group with the name **uASQ questions**.



### Modifiers



- **Likert Scale questions** — There is a numerical modifier group in the **Modifiers** panel with the name of the question it is attached to and values between 0 and 5. If higher values are entered as answers the Modifier values are changed accordingly.
- **Multiple choice questions with nominal answers** — There is a nominal modifier group in the **Modifiers** panel with the name of the question it is attached to, with the options that were scored as modifiers. If multiple answers are not allowed, the Modifier group is mutually-exclusive.
- **Multiple choice questions with numerical answers** — The **Modifiers** panel contains a numerical modifier group with the name of the question it is attached to with values between 0 and 5. If higher values are entered as answers the Modifier values are changed accordingly.
- **Open ended questions** — There are no modifier groups in the **Modifiers** panel.

## 6 Analyzing your data

The questions you defined in uASQ are stored as point events in the coding scheme with the answers as modifiers. You can calculate the frequencies of the answers given. Before you analyze your data you can make a selection of your data.

### SELECTING DATA

Data selection includes:

- Grouping data — see below
- Filtering data — see page 30
- Selecting intervals — see page 31

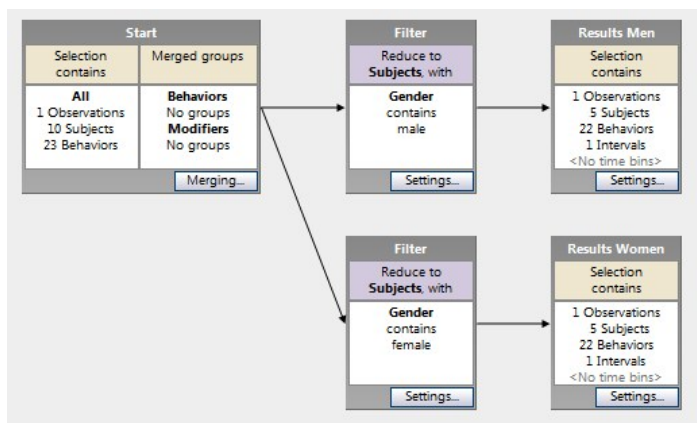
#### *Grouping data*

You can group your data based on the values of your independent variables. For instance, group your test participants according to their gender to find out whether male and female subjects rate your products differently. We assume that *gender* has been defined as an independent variable. Each observation has one value of gender (*male* or *female*).

Procedure:

1. In the Project Explorer, click **Analyses**, then in the window that appears click **Select Data**.
2. To give your data profile a name, right-click it in the Project Explorer and choose **Rename Data Profile**.
3. In the **Components** pane, click the button next to **Filter Events - By Gender** and then select *Male* in the window that appears. Place the **Filter** box between the **Start** and **Results** box. Click **Settings** in the **Results** box and rename it for example to **Results Men**. This is a result container for all observations of male subjects.

- Next, click the button next to **Result Containers - Results**, and name the new box **Results Women**. Place the new box somewhere under the **Results Men** box.
- Click the button next to **Filter Events - By Gender** and then select **Female** in the window that appears. Place the **Filter** box between the **Start** and **Results Women** box. This is a result container for all observations of female subjects.
- The data selection screen should look like this:



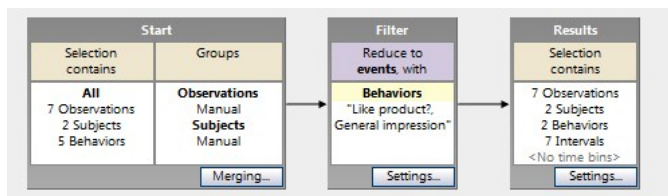
### ***Filtering data***

You can filter your data and analyze only one behavioral group, for instance, only the uASQ data or only the test participants' emotional responses.

Procedure:

- In the Project Explorer, click **Analyses**, then in the window that appears click **Select Data**.
- To give your data profile a name, right-click it in the Project Explorer and choose **Rename Data Profile**.

3. In the **Components** pane click the button next to **Filter Events - By Behaviors** and select the behaviors which you want to analyze. Then click **OK**.
4. Insert the resulting **Filter** box in the sequence between the **Start** box and **Results** box.



5. To filter the answers, click next to **Filter Events - By Modifiers**. Select the answers and insert the resulting box in the sequence after the **Filter Behaviors** box.

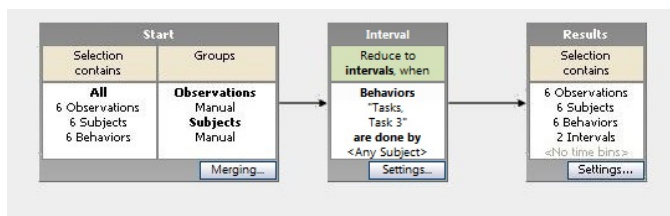
### **Select intervals by behaviors**

The aim of selecting intervals is to analyze events that occur in time periods defined by an event or a combination of events (interval conditions). For example, you want to analyze the answers to the questions which you presented when the test participant was performing *Task 3*. You select intervals by the state behavior *Task 3*, thus analysis is done on all events scored when *Task 3* was active.

Procedure:

1. In the Project Explorer, click **Analyses**, then in the window that appears click **Select Data**.
2. To give your data profile a name, right-click it in the Project Explorer and choose **Rename Data Profile**.
3. In the **Components** pane under **Select Intervals**, click the button next to **By Behaviors** and select the behaviors defining the intervals to analyze. Then click **OK**.

4. Insert the resulting **Interval** box in the sequence between the **Start** box and **Results** box.



## CALCULATING STATISTICS FOR LIKERT SCALE QUESTIONS

1. In the Project Explorer, click **Analyses**, then in the window that appears click **Analyze Data** and subsequently click **Numerical Analysis**.
2. Click **Layout**. Make sure that **Modifiers** is selected under **Behaviors**.
3. Choose the layout of the result table by placing the various categories **On Rows**, **On Columns** or **On Sheets**. Next, click **OK**.
4. Click **Statistics**. Under **Numeric Modifiers** choose the statistics you want to calculate. Next, click **OK**. The result table appears on your screen.

	Subjects		
Behaviors		Candy taste	Like product?
Modifiers		Candy taste	Like product?
Statistics		Mean	Mean
	Participant 1	6.64	3.47
	Participant 2	8.00	4.00

**Figure 8** Example of a Numerical Analysis result. *Candy taste* is a Multiple choice question with numerical answers. *Like product?* is a Likert scale question.



## CALCULATING STATISTICS FOR MULTIPLE CHOICE QUESTIONS WITH NOMINAL ANSWERS

1. In the Project Explorer, click **Analyses**, then in the window that appears click **Analyze Data** and subsequently click **Behavior Analysis**.
2. Click **Layout**. Make sure that **Modifiers** is selected under **Behaviors**.
3. Choose the layout of the result table by placing the various categories **On Rows**, **On Columns** or **On Sheets**. Next, click **OK**.
4. Click **Statistics**. Choose **Total number** as the statistic to calculate. Next, click **OK**. The result table appears on your screen.

	Behaviors	Modifiers	
Statistics			Total number
	Why don't you like it?	Not sweet enough	3
		Too hard	1
		Too sticky	11
		Too sweet	2
		<Any Modifier>	17

**Figure 9** Example of a Behavior Analysis result.

## CALCULATING STATISTICS FOR MULTIPLE CHOICE QUESTIONS WITH NUMERICAL ANSWERS

1. In the Project Explorer, click **Analyses**, then in the window that appears click **Analyze Data** and subsequently click **Numerical Analysis**.
2. Click **Layout**. Make sure that **Modifiers** is selected under **Behaviors**.
3. Choose the layout of the result table by placing the various categories **On Rows**, **On Columns** or **On Sheets**. Next, click **OK**.
4. Click **Statistics**. Under **Numeric Modifiers** choose the statistics you want to calculate. Next, click **OK**. The result table appears on your screen. See Figure 8 for an example of a Numerical Analysis result.

## STATISTICS FOR OPEN ENDED QUESTIONS

You cannot calculate statistics for open ended questions. If you want to have an overview of the answers of your test participants across all observations, you can make an Episode Selection based on the current dat profile. Make sure that the **Comment** column is visible in the Episode Selection.



See **Episode Video** in The Observer XT Help for more information about making Episode Selections.

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# A Technical support

## ***Noldus Help Desk***

If you have any problems, questions, remarks or comments, please let us know. You can contact us via our website ([www.noldus.com](http://www.noldus.com)) and fill out a Support Request Form (preferred), or phone. We offer 24 hour support via help desks in different time zones. You can also contact us via the The Observer XT program. From the **Help** menu choose **Noldus Online** and subsequently **Contact Help Desk**. If you encounter a problem with the program, you can also select **Report an Issue**. This opens a form on our website which is sent to the help desk when submitted.

Before you contact the help desk, please have the following information available so that our support staff can help you as quickly as possible. To find this information, go to the **Help** menu and select **About The Observer XT**:

- The version number of your copy of The Observer XT.
- The name of the registered user of The Observer XT (click **User Info**).
- The license number of your copy of The Observer XT (click **User Info**).

Please refer to the **About Noldus - Contact** section on our website ([www.noldus.com](http://www.noldus.com)) for other contact information.

## ***Error messages***

All error messages are displayed in a **Critical Message** box. The error is displayed and, if possible, a solution. Whenever such an error occurs, a log file is created called Observer.log. The Technical Support Department may request this file when answering your support question. You can locate the file in:

C:\ProgramData\Noldus\The Observer\XT 12\Log.

It is possible that this folder is hidden — To view hidden files, from the **Tools** menu of Windows Explorer choose **Folder Options**, then **View**, and select **View hidden files and folders**.

# B End-User License Agreement

**IMPORTANT – READ CAREFULLY.** Please read this End-User License Agreement ("EULA") carefully before checking the "Accept" checkbox, downloading or using the Software (as defined below). By checking the "Accept" checkbox, downloading, installing or otherwise using the Software, End-User agrees to be bound by the terms and conditions of this EULA. If you do not agree to the terms and conditions of this EULA, do not check the "Accept" checkbox and do not download, install or use the Software.

The Software is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The Software is licensed, not sold.

## 1. DEFINITIONS

Terms used in this EULA but not otherwise defined shall have the meaning assigned to them below:

- 1.1. **Authorized Partner:** the individual or legal entity that has been granted permission by Noldus to promote, sell or otherwise distribute the Software on behalf of Noldus.
- 1.2. **End-User:** the individual or legal entity that has acquired or uses the Software under the terms and conditions of this EULA.
- 1.3. **EULA:** this End-User License Agreement.
- 1.4. **Network License:** a licensing mechanism comprising a license file and accompanying software managing the number of concurrent users of the Software.
- 1.5. **Noldus:** Noldus Information Technology bv, with registered office at Nieuwe Kanaal 5, 6709 PA Wageningen, The Netherlands, listed in the Trade Register under Chamber of Commerce number 09094422, or its subsidiaries listed in the document

[http://www.noldus.com/legal/noldus\\_corporate.pdf](http://www.noldus.com/legal/noldus_corporate.pdf).

**1.6. Security System:** a system of software protection to limit installation and use of the Software to the authorized End-Users and computers.

**1.7. Security Device:** a device that forms part of or is attached to the computer, and is used as part of the Security System to control access to the Software.

**1.8. Software:** the software (including, but not limited to, any updates, upgrades and associated media, printed or electronic documentation and online services) provided to the End-User by Noldus or an Authorized Partner together with this EULA, that is not covered by third party terms and conditions and is included in the list under “Noldus software” in the Annex to the General Terms and Conditions ([http://www.noldus.com/legal/noldus\\_gtc.pdf](http://www.noldus.com/legal/noldus_gtc.pdf)).

## **2. LICENSE**

2.1. Upon payment by the End-User of the purchase price for the Software, Noldus grants End-User a revocable, non-exclusive license to download, install and use the Software in accordance with the terms and conditions of this EULA. This EULA does not grant any rights to obtaining future upgrades, updates or supplements of the Software. If upgrades, updates or supplements of the Software are obtained, however, the use of such upgrades or updates is governed by this EULA and the amendments that may accompany them and may be subject to additional payments and conditions.

2.2. The End-User may download, install and use the Software on as many computers as is reasonably necessary, however the Software may not be shared or used concurrently on more computers than for which EULA's are granted. End-User shall take all reasonably required steps to ensure that this number is not exceeded.

2.3. End-User is allowed to store or install a copy of the Software for back-up or archival purposes.

2.4. End-User shall not (i) modify, alter, adapt, merge, decompile or reverse-engineer the Software or any part thereof nor create any

derivative works based on all or any part of the Software, or (ii) remove or obscure any copyright, trademark or other ownership notices from the Software, or (iii) sub-license, sell, rent, lease, hire, loan, assign or otherwise transfer the Software or your rights in the Software or any part thereof, except as provided for in this EULA.

2.5. The Software may be protected by a Security System, including but not limited to the use of expiry dates, time-limited or feature-limited licenses, authorization codes, Security Devices and Network Licensing. End-User is prohibited to (attempt to) remove, alter or circumvent in any way any part of such Security System.

2.6. End-User is responsible for regular, frequent and effective backups of all files produced or modified while working with the Software.

### **3. INTELLECTUAL PROPERTY**

3.1. All title, copyright and other industrial, intellectual or proprietary rights in and to the Software (including but not limited to any images, photographs, animations, video, audio, music, and text incorporated into the Software), the accompanying printed materials, and any copies of the Software are owned by Noldus or its Authorized Partners. All rights not expressly granted are reserved by Noldus.

3.2. The Software may include or make use of third party software, including open source software. Such third party software may be subject to the third party's terms and conditions provided in the documentation accompanying the Software and may contain copyright or other industrial, intellectual or proprietary rights of such third party. End-User hereby agrees to the terms and conditions for such third party software. In the absence of any third party terms and conditions, this EULA will govern the third party software in the Software.

3.3. End-User may, from time to time, provide Noldus with comments, suggestions, data, information or feedback ("**Feedback**") on the Software. End-User acknowledges and agrees that such Feedback may be freely used by Noldus, at its sole discretion, for the design, development, improvement, marketing and commercialization of its products and services, without any restrictions based on confidentiality or intellectual property rights.

## **4. TRANSFER**

4.1. End-User is entitled to make a one-time, permanent transfer of this EULA and Software only directly to one other End-User. This transfer must include all of the Software (including all component parts, the media and printed materials, any upgrades and this EULA). Such transfer may not be by way of consignment or any other indirect transfer and shall be subject to the following provisions:

- a. End-User will provide to Noldus prior to any such transfer the full name and address details of the new End-User and the expected date of transfer in writing;
- b. The new End-User understands and agrees to all the terms and conditions of this EULA in the same way as if the new End-User had obtained the Software from Noldus or an Authorized Partner;
- c. End-User will destroy all (partial) copies of the Software and all accompanying materials, including but not limited to installed copies and any backup copies on data storage devices and guarantee to Noldus in writing that this has been done. If the Software is an upgrade, any transfer must include all prior versions of the Software;
- d. Noldus reserves the right to levy an administrative charge upon the End-User and/or the new End-User in relation to transfer of the Software to an End-User.

4.2. Any attempted transfer without prior written permission from Noldus shall constitute a material breach of this Agreement and shall be deemed null and void.

## **5. TERM; TERMINATION**

5.1. This EULA shall enter into force on the date of acceptance by the End-User and shall continue until terminated in accordance with this article 5.

5.2. Noldus is entitled to terminate the EULA immediately upon prior written notice upon:

a. the breach of any material provision of this Agreement by the End-User if (i) such breach is not curable or (ii) if curable, the End-User has not cured such breach within 30 (thirty) day period following receipt of a written notice by Noldus substantiating such breach ("*ingebrekestelling*");

b. the filing or institution of bankruptcy, liquidation or receivership proceedings of the End-User or in the event a receiver or custodian is appointed for the End-User's business, or if its business is discontinued or if it has a petition presented by a creditor for its winding up or if the End-User enters into any liquidation (other than for purpose of reconstruction or amalgamation).

5.3. Upon termination of the EULA, the End-User shall immediately discontinue the use of the Software and remove the software of all computers, destroy all (partial) copies of the Software from all storage media and return the documentation and materials relating to the Software to Noldus or its Authorized Partner.

5.4. Termination of this Agreement does not remove or reduce End-User's obligation to pay any outstanding license fees or other monies, all of which shall be due for payment immediately on termination of the EULA.

5.5. The following provisions shall survive termination of this EULA: Article 3, 7, 9, 10 and this Section 5.5. In addition, any other provisions which are required to interpret and enforce the Parties' rights and obligations under the EULA shall also survive any termination or expiration of this EULA, but only to the extent required for the full observation and performance of the EULA.

## **6. WARRANTY**

6.1. Noldus warrants that the Software as of the date of delivery to the End-User by Noldus or its Authorized Partner, the Software will, for a period of 90 days ("**Warranty Period**") materially conform to the specifications set out in the user documentation accompanying the Software ("**Specifications**"), provided that:



a. the Software is properly installed on a supported computer platform (as defined in documents that can be accessed on

<http://www.noldus.com/downloads>

and used in accordance with the provisions of the accompanying user documentation and/or any Noldus-approved training course;

b. Noldus is notified in writing within 14 days after any non-conformity of the Software was known or should reasonably have been known to End-User and the End-User has made available all the information that might reasonably be required to allow Noldus to investigate, recreate and where possible remedy a non-conformity;

c. the Software has not been (a) altered, repaired or modified by any party other than Noldus or a third party provider approved by Noldus; or (b) used with software or a computer platform other than set out in the documents that can be accessed on

<http://www.noldus.com/downloads>

or have been subjected to negligence, or computer or electrical malfunction; or (c) were used, adjusted, or installed other than in accordance with instructions by Noldus.

6.2. Other than set out in Section 6.1, no warranties are expressed or implied with respect Software or any element thereof, including without limitation its quality, performance, accuracy, merchantability or suitability or fitness for any purpose, whether or not that purpose has been communicated by End-User to Noldus. The Software is a general product developed by Noldus for a wide range of solutions, requirements and situations and End-User is responsible for purchasing the Software required for his needs. Noldus explicitly does not warrant that the Software shall be entirely without error or fault nor that it will operate without interruption. End-User agrees that such errors, faults or interruptions shall not be deemed material and cause to terminate this EULA.

6.3. The warranty by Noldus set out in Section 6.1 applies only to the first installation of the Software and will not apply, resume or renew upon delivery or installation of any subsequent update or upgrade to the Software, alteration in the number of EULA's granted for use of the

Software, or any other extensions, upgrades or alterations to the Software where the Software has previously been delivered to or installed by the End-User.

6.4. The warranty by Noldus set out in Section 6.1 shall further not apply to Software that is licensed or otherwise made available at no cost, or Software that is designated as 'prototype', 'alpha' or 'beta' code, all of which are provided 'as is' and without warranty, representation or liability.

6.5. Upon receipt of an End-User's written notice of the Software not conforming to the Specifications during the Warranty Period, Noldus shall at its option and in its sole discretion (i) assist the Customer in correcting or replacing the non-conforming Software or, (ii) terminate the EULA immediately and refund the purchase price paid by the End-User. The remedies described above shall be End-User's sole and exclusive remedies. Upon expiration of the Warranty Period, Noldus shall have no obligation to provide such remedies.

6.6. Noldus and Authorized Partners, are not responsible for maintaining or supporting use of the Software or obligated to provide any updates, fixes or support to the Software unless otherwise expressly agreed in writing between End-User and Noldus or the Authorized Partners.

## **7. LIABILITY; INDEMNIFICATION**

7.1. End-User acknowledges that the Software is intended for research purposes only and agrees not to use the Software for clinical applications, for the purpose of diagnosis or treatment of humans. The Software cannot be used in any application where the failure, malfunction or inaccuracy of the Product carries the risk of death or serious bodily injury.

7.2. In no event will Noldus or the Authorized Partners be liable to the End-User for any indirect loss, claim, damage, liability or expenses (including reasonable attorney's fees) ("Losses"), including lost profits, and damage due to the stagnation of business operations caused by the performance of Noldus, the Authorized Partners or the third parties engaged by Noldus in the performance of the EULA, unless for

and to the extent that such loss or damages are due to negligence or willful misconduct on the part of the Noldus or the third parties engaged by it. If, despite the provisions in this EULA, liability exists anyway, only direct damage will be eligible for reimbursement.

7.3. Noldus' and Authorized Partner's liability shall also be excluded in the event of:

- a. End-User's use of the Software other than in accordance with Section 7.1;
- b. direct and indirect consequences of the End-User's failing to adhere strictly to the user documentation provided or made available by Noldus or the Authorized Partner;
- c. for any loss of or damage to files howsoever caused.

7.4. Save for gross negligence or willful misconduct of Noldus or its officers, the Authorized Partner or the third parties engaged by Noldus in the execution of the Agreement, any and all liability of Noldus or the Authorized Partner is limited to an amount equal to the purchase price paid by the End-User to Noldus or the Authorized Partner for the specific Software from which the liability arises. In any event, a claim will be unenforceable and lapse unless Noldus or the Authorized Partner receives a written notice thereof no later than 6 months after the discovery of an event or circumstance that gives or may give rise to that claim.

7.5. End-User shall indemnify, and hold harmless Noldus, the Authorized Partners or the third parties engaged by Noldus from and against any and all Losses caused by (a) any failure in the performance of the obligations of the End-User under the law, this EULA or Noldus' General Terms and Conditions, and (b) all third party claims on any grounds whatsoever, directly or indirectly related to the End-User's use of the Software, the contents thereof or any results or materials generated by the Software.

## **8. MISCELLANEOUS**

8.1. Parties may communicate with each other by electronic mail. Parties recognize the risks associated with electronic mail and declare

that they shall not hold each other liable for any damage incurred by either of them as a result of the use of electronic mail. If a Party is in doubt as to the content of an electronic message received, the content of the message originating with the sender shall be decisive.

8.2. The invalidity or unenforceability of any provision this EULA shall not affect or limit the validity or enforceability of any other provisions thereof. Any such invalid or unenforceable provision shall be deemed to be substituted by a provision that is considered to be valid and enforceable. The interpretation of the substituting provision shall be as close as possible to the economic, legal and commercial objectives of the severed provision.

8.3. Failure by Noldus or the Authorized Partner to enforce any of its rights under the EULA shall not constitute a waiver of such rights thereunder and shall not relieve End-User of its obligation to comply with such provisions. No waiver or amendment of any provisions therein shall be effective unless signed in writing by a Noldus representative. Any such written waiver shall only be applicable to the specific instance to which it relates and shall not be deemed to be a continuing or future waiver.

8.4. Amendments or changes to this EULA can only be agreed upon in writing between the Parties.

8.5. The EULA shall be binding upon the Parties thereto, their legal representatives, successors and assigns. End-User shall not assign any right or obligation arising out of this EULA without the prior written consent of Noldus. Any attempt by End-User to assign or delegate any obligation hereunder shall be deemed null and void.

## **9. GOVERNING LAW: END-USERS USA OR CANADA**

9.1. This EULA is exclusively governed by the law of the Commonwealth of Virginia for End-Users having their principal place of business in the United States of America or Canada. The United National Convention for Contracts on the International Sale of Goods is expressly excluded.

9.2. Any disputes arising out or in connection with this EULA that cannot be solved amicably within a reasonable period of time will be submitted to the competent court in Loudoun County, Virginia for End-

Users having their principal place of business in the United States of America or Canada.

## **10. GOVERNING LAW: END-USERS OTHER COUNTRIES**

10.1. This EULA is exclusively governed by the law of The Netherlands for End-Users having their principal place of business in any country other than the United States of America or Canada. The United National Convention for Contracts on the International Sale of Goods is expressly excluded.

10.2. Any disputes arising out or in connection with this EULA that cannot be solved amicably within a reasonable period of time will be submitted to the competent court in Arnhem, The Netherlands, for any dispute with End-Users having their principal place of business in the European Union. In the event that an End-User has its principal place of business outside the European Union, the United States of America or Canada, any dispute shall be finally settled in accordance with the Arbitration Rules of The Netherlands Arbitration Institute. Location shall be Arnhem, The Netherlands. The arbitration procedure shall be conducted by one (1) arbiter in the English language.

**NOTE** A PDF copy of this End-User License Agreement can be found in the folder Documentation\Legal, located in your Noldus application folder (default: C:\Program Files (x86)\Noldus\[Noldus Application]).

*Last revised 1 August 2017.*

