

Tourist Survey from Blaise 4.8 to Blaise 5 in Norway.

Jan Haslund, Statistics Norway

Introduction of the tourist survey in Norway

In the tourist survey in Norway we collect data from tourists visiting Norway. The tourists have to overnight at hotel or camping. Our sample is hotels and camping sites in Norway. The sample is about 200 sites each four months. The interviewers travel to the hotels and in the morning (at breakfast) they ask the visitors if they will participate in the survey. The visitors then answer the survey using tablets or paper. The reason for using pen and paper is that we do not have enough tablets. Some places there are also bad network connection and mobile connection. The respondents are both tourists and people on a business trip.

The Blaise 4.8 solution

At the Blaise Conference in London 2012 we saw a presentation of C-Moto from CentERdata we decided to use this. So until 2015 our electronic questionnaire was an internet version using C-MOTO and Blaise 4.8. The interviewers also had the opportunity to give the tourist a card with the link to the questionnaire with UserID and password. The link was also on a QR code so they could read it with their smartphone. This version of the questionnaire has a little change in the primary key. (The respondent has to select the hotel themselves). The Primary key is hotel_ID, date and time. The questionnaire is in 14 languages. We also had two versions one for our own tablets and one for the tourists using the QR code. In addition we have a version for data entry of the paper forms. This means we had 29 different questionnaires in 14 different languages and in 29 different Blaise databases. We choose to have it in different databases because then we could start with one language and put them in production one by one. We could also easily change a questionnaire in one language if it was something wrong with it. Every morning we run some manipula scripts. The manipula scripts make one database of the 29 databases.

Because it was so many questionnaires which could change every fourth month we think it would be nice to generate them. For the generation we made a template for the Blaise questionnaire with .bla and .inc files. We have two .bla files one for our tablets and one for them who use their own smartphones or tablets. In the files we put tags like ("##T08bTxt##") instead of texts. (Fig 1)

```

io.inc - Notepad
File Edit Format View Help
BLOCK IOopplys

FIELDS
{F26 } {T26 }
S28 "@#<b>##F26##</b>@#"
      : (kvinne "##T2601##",
        Mann "##T2602##")

{F27 } {T27 }
S29 (number) "@#<b>##F27##</b>@#"
      : 1..130

{F28 } {T28 }
S30 "@#<b>##F28##</b>@#"
      : (Grunnskole "##T2801##",
        Videre "##T2802##",
        Bachelor "##T2803##",
        Master "##T2804##",
        Forsker "##T2805##",
        VetIkke "##T2806##")

{F29 } {T29 }
S31 "@#<b>##F29##</b>@#"
      : (Ansjatt "##T2901##",
        Selvst "##T2902##",
        Pensjonist "##T2903##",
        Stud "##T2904##",
        Annet "##T2905##",
        VetIkke "##T2906##?")

```

Fig 1

We put ## as a start signal for the tag and also as a stop signal. Doing it like this we will know that the text between ## and ## is the tag. These tags we would like to change for each language. We made an excel sheet with the tags and texts in all the languages (Fig 2).

	E	F	G	H	I	L	N		
1		Norsk		Engelsk		Fransk	Koreansk	Kinesisk	
399	T2902		Selvstendig næringsdrivende		Self-employed		Travailleur indépendant		자영업
400	T2903		Pensjonist		Retired		Retraité		정년퇴직자
401	T2904		Student/eleve		Student/pupil		Etudiant/élève		학생
402	T2905		Annet		Other		Autre		다른 직종
403	T2906		Vet ikke		Don't know		Ne sais pas		모름
404	F26		Er du kvinne eller mann?		Are you a woman or a man?		Êtes-vous une femme ou un homme?		본인은 여성 아니면 남성입니까?
405	F27		Hor gammel er du?		How old are you?		Quel âge avez-vous?		본인의 연령?

Fig 2

The idea is that, if we should change the text in our questionnaire. We can change the text in Excel in one language or in all languages and generate new questionnaires we need. We will then have the same structure for the database for all languages since we use the same template for every language.

To generate the Blaise source files we made an AUTOIT script. This script read the Excel sheet into an array. It reads the template into an array (line by line). It looped thru the array looking for tags, when it find a tag it search thru the array from the excel sheet and find the text for the tag in the chosen language (This language is sent as a parameter). Then it swaps the tag with the text from Excel. When it has looped thru the whole file and changed everything it writes a file in a new directory. The directory has a name which identifies the language. Then it starts with the next template. We have one bla file (in two versions) and four .inc files. When all files are changed the .bla file is prepared. The AUTOIT script also prepares a manipula script. This script makes a new empty database. We need this empty database for the internet workshop. Then we have to do some small changes in the internet workshop and create a package. The package is then ready to be installed on our server. In the script you can select to convert one language or all languages at the same time.

Here is a short description of AUTOIT.

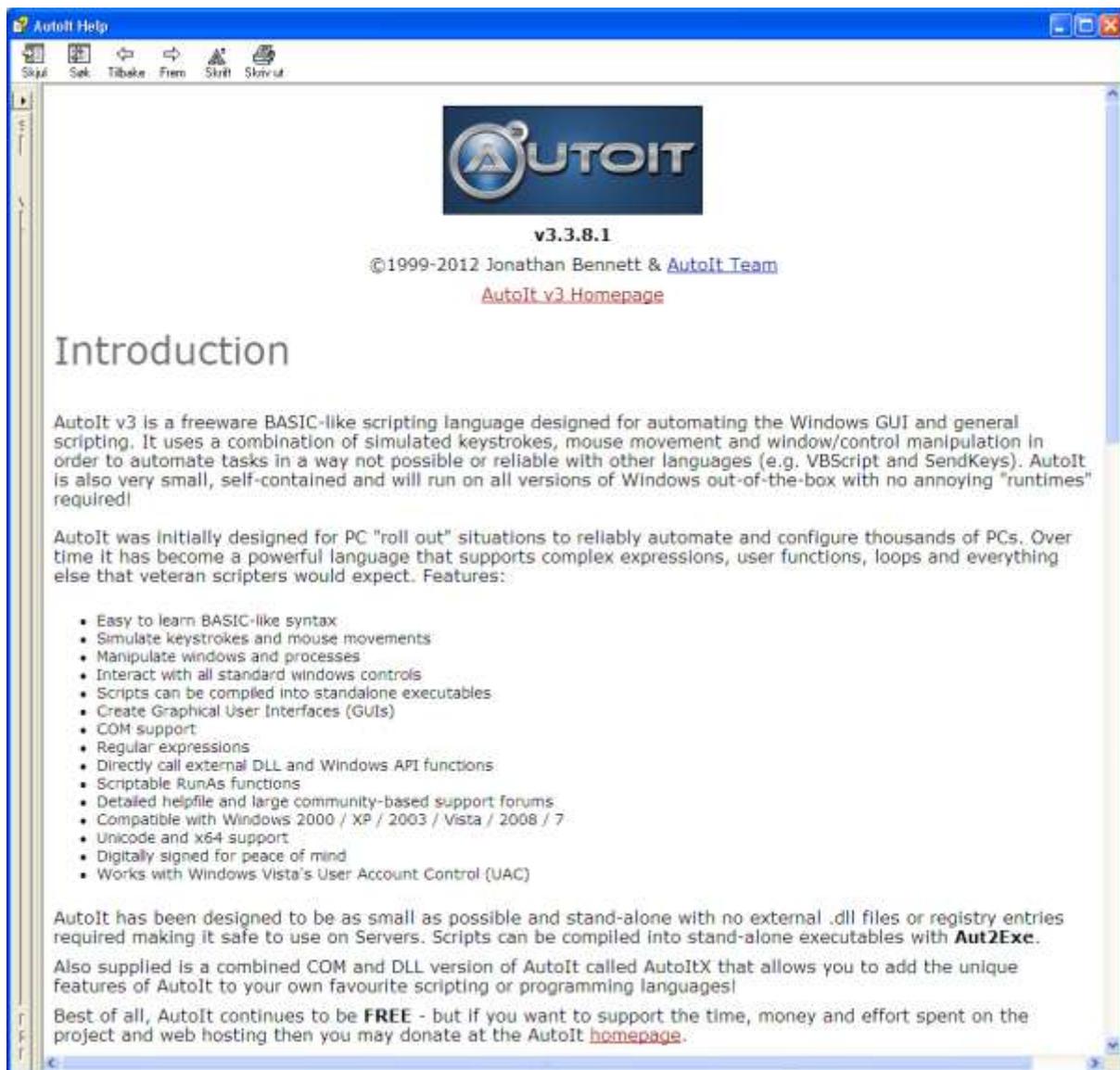


Fig 3

After we have ran the AUTOIT Script the file would look like this in English

```

IO.inc - Notepad
File Edit Format View Help
BLOCK IOopplys

FIELDS
{F26 } {T26 }
S28      "@#<b> Are you female or male?</b>@#"
          : (Kvinne " Female",
            Mann    "  Male")

{F27 } {T27 }
S29 (number) "@#<b> How old are you?</b>@#"
          : 1..130

{F28 } {T28 }
S30      "@#<b>what is your highest level of education?</b>@#"
          : (Grunnskole " Primary and lower secondary school",
            Videre     " upper secondary school",
            Bachelor  " Bachelor",
            Master    " Master",
            Forsker   " Research (Phd)",
            vetIkke   " Don't know")

{F29 } {T29 }
S31      "@#<b>Do you consider yourself to be...</b>@#"
          : (Ansatt    " Employed",
            Selvst    " Self-employed",
            Pensjonist " Retired",
            Stud      " Student/pupil",
            Annet     " Other",
            vetIkke   " Don't know?")
  
```

Fig 4

Or like this in Chinese.

```

IO.inc - Notepad
File Edit Format View Help
BLOCK IOopplys

FIELDS
{F26 } {T26 }
S28      "@#<b> 您的性别?</b>@#"
          : (Kvinne " 女",
            Mann    " 男")

{F27 } {T27 }
S29 (number) "@#<b> 您的年龄?</b>@#"
          : 1..130

{F28 } {T28 }
S30      "@#<b> 您的最高学历?</b>@#"
          : (Grunnskole " 初中",
            Videre     " 高中",
            Bachelor  " 学士",
            Master    " 硕士",
            Forsker   " 博士/研究生",
            vetIkke   " 不确定")

{F29 } {T29 }
S31      "@#<b> 您的职业?</b>@#"
          : (Ansatt    " 工资阶层",
            Selvst    " 个体工商户",
            Pensjonist " 退休人员",
            Stud      " 学生",
            Annet     " 其它",
            vetIkke   " 不确定?")
  
```

Fig 5

For starting the questionnaire we have two asp files .In the first asp file, the interviewer selects the hotel where the interviewing is taking place. This is only set the first time the interview is started. The next asp is the page where the respondents start. On this page the respondent could click a flag for the language he or she want to use. After that there was not possible to change language.



Fig 6

Here is a screenshot from the survey in Blaise 4.8



Fig 7

Converting to Blaise 5

When we should change the questionnaire for 2015 we decided that we will try to make it in Blaise 5. Instead of making it for browser, like the old version, we try to make it as an android app in Blaise 5. When we use an app we don't need a connection to the internet and could do the interviewing off-line and synchronize it at home. This means that we could use less pen and paper and more tablets. With everything in an app, we also would like to have all languages in one app and one database.

The first thing we will do was to make a version with all languages in one datamodel. We also want to generate it at least for the first time. We then took the AUTOIT Script and made some small changes to it. Instead of changing the tag with the text for one language we changed it with all languages (fig 8).

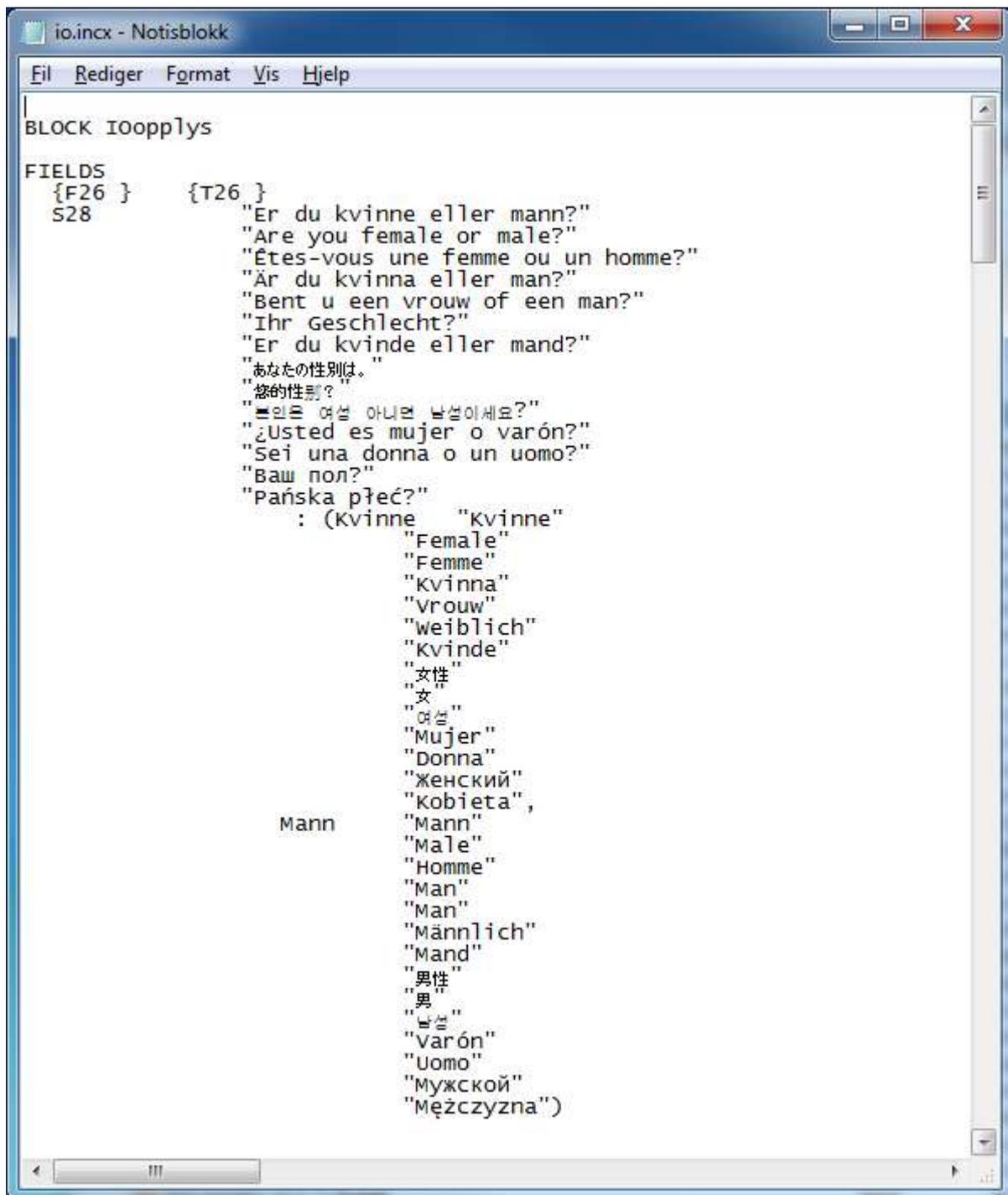


Fig 8

After we had generated it in Blaise 4.8 we converted it to Blaise 5 using Blaise4To5Source.exe. The conversion worked pretty well. When we looked at it in the layout section in Blaise 5 we find out that it was some problems with some html tables with two pictures and some texts (Fig 8).

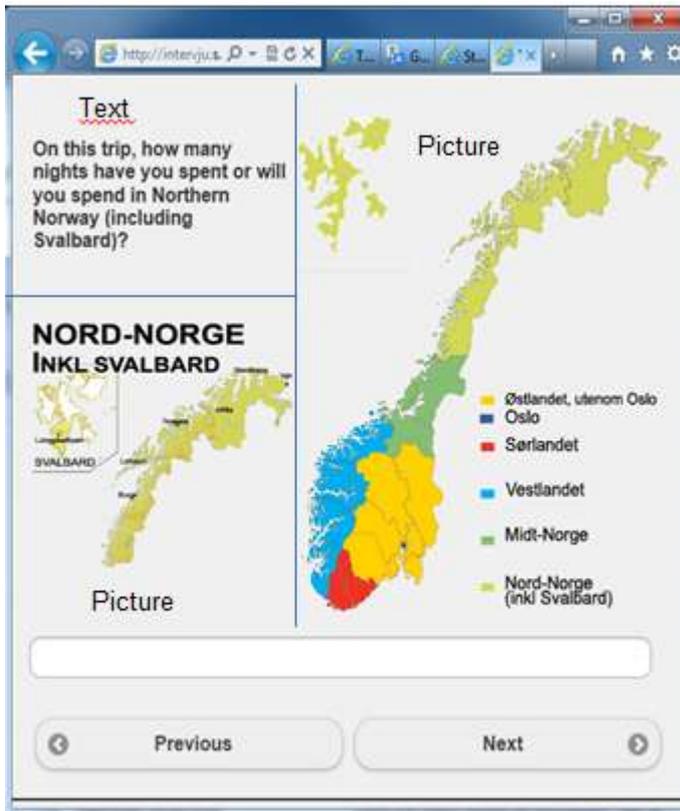


Fig 9

To solve this we made a new gif with the two pictures and put the question text below the pictures.



Fig 10

Since the questionnaire already was used on a tablet it was quite simple, with mostly one question on each page. In addition it was some small tables. So it was not a big job with the Blaise code. We added some groups and start working with the layout. The first thing we did was making a new masterpage. On this page we wanted that the respondent could change language for the questionnaire. So we make a ribbon with flags, one flag for each language. The flags were image controls. We put an “OnClick” event on the control which changed the language to the language correspondent with the flag. Doing it like this the respondent could change language all time thru the interview.



Fig 11

We also have to put the 14 languages in the Blaise Resource database and translate some texts like next, previous etc. These texts will also change with the language the respondent select. We also made some small changes in the Blaise Resource database with colors, font sizes etc.

To start the survey in Blaise 4.8 we use two asp files. In Blaise 5 we could use the Intro page and Receipt page. The Intro page is Page with a text and a button. The text just says “Press start to start a new questionnaire”. The button says “start new questionnaire”. We use this start page because we want to have a start point for the respondents. The first time the survey is started we start the questionnaire with the primary key. The primary key is like in Blaise 4.8 the hotel_ id, date and time. The interviewer has to select hotel and the date and time will be set to sysdate and systime. Then the first respondent can fill in the questionnaire. At the end the respondent came to the receipt page. This Page has an “OnLoad” event that starts a new survey with parameter for Hotel_ID, date and time. And it will go to the intro page for the survey. Since the field in primary key already is set we now start directly on the first question in the questionnaire.

We have now made a questionnaire and made some layout that we think looked ok on an android tablet, but we haven’t seen it on a tablet as an app yet. We have seen it in a browser from the tablet but we know it would not look the same in an app. In December 2014 we get an android client that we could try. We downloaded the client and installed it on our tablet and put the survey on our server. At first we run it on local network at the office. This way it was easy to make changes when something came up in the testing. We also have some problems with our server and network. First we have to open some ports. Still we have some problems connecting the tablets from the network to the server. It works if we used mobile data or connected to another network for example at home. So this is a problem with our network. The interviewers should not be on this network so it was not a problem after all. Here are some screen shots from our new Blaise 5 survey.



Fig 12

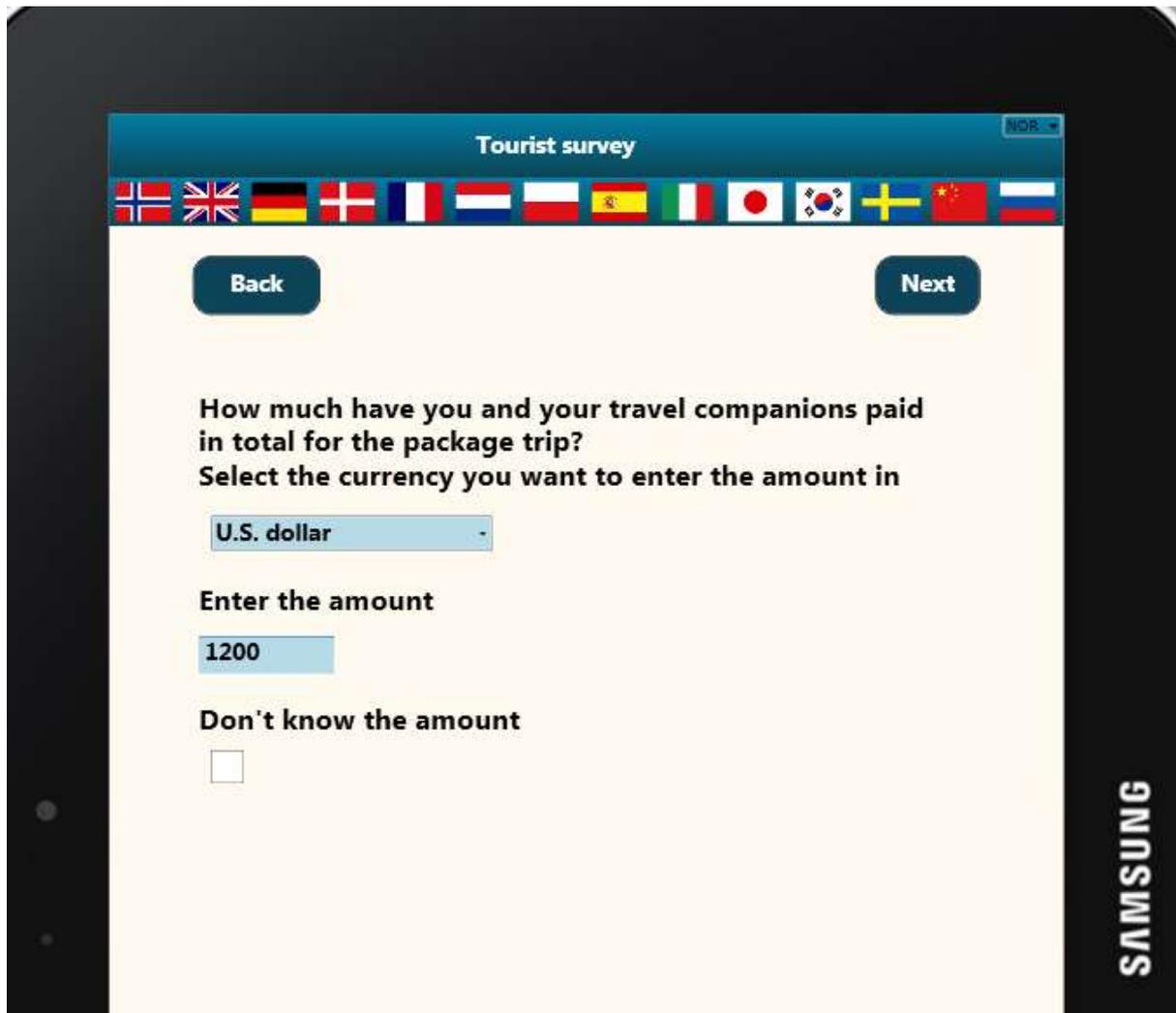


Fig 13

Reference

Alerk Amin, Arnaud Wijnant (CenERdata, Tilburg, The Netherlands) "Blaise On-the-Go Using Blaise IS With Mobile Devices", Proceedings of the 14th International Blaise Users Conference, April 2012