

# BLAISE in Macedonia

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## 1. Introduction

Starting from 1998 the BLAISE software is used at SSO for the need of Labor force survey. The survey is conducted in accordance to the Eurostat recommendations starting from 1996 and on annual level, while in the last four years it is conducted on quarterly level. The data gathering is done by the method of interview on printed questionnaires. Year by year, the basic content of the survey is extended and upgraded by adding of new questions and modules (for example, the module on long life learning, etc.).

The first survey was conducted in 1996 in the office and was realized on **MAINFRAME(UNISYS A12 MCP/AS** operative system. The data entry, controlling and performing the additional variables for tabulation and the tabulation itself were realized by using the principle of "BATCH PROCESSING". While data entering there was a limited "on-line" control for the accuracy of data entered. The errors were corrected on a listing and once corrected they were entered into the computer in index files.

This manner of work in the at that time information environment existing at SSO was acceptable, but with the fast development of the information technology and equipping of SSO with the same one, leded towards implementing a new manner of data processing in a client-server environment.

It was in 1998 when for the first time the application for LFS in **Blaise** was independently made by programmers in charge. In the preparation of the application, the Danish-Finnish Consortium that was present at that time at SSO gave the needed support.

In the first years, conduction of the survey was planned through engaging all the regional departments in the phase of data entry, aiming at reconsidering the advantage of this work manner as well as capabilities of SSO to realize the survey in a timely and quality manner.

The LFS data were entered by the persons from the regional departments trained for that job. In the application all nomenclatures and codes were included (municipalities, settlements, activities, occupations), so during the data entry except "on-line" controlling, coding of data was made. The whole work was organized in such a way that there was good cooperation with the regional departments and the methodological problems were solved on time. The data from the regional departments (Blaise files) were sent to SSO (in the beginning recorded on floppies and later with FTP) where data integration was made. Next step was data converting in SAS that is used for further processing (calculation of weights and tabulation).

By time, the program has been developed and advanced in direction to satisfy the users needs (subject matter department, team for data entry) aiming at providing quality data harmonized with European standards.

By equipping of SSO with IT equipment, at the regional departments PC of lower performances were installed so the data entry was transferred to SSO headquarters.

## 2. Short review of the functionalities of the application

The data entry starts by controlling of the identification data in already selected sample. Then starts the data entry for household (questionnaire A) and afterwards data entry for each person-member of the household (questionnaire B).

The application is started by double clicking of the icon for data entry and a screen is opened (picture 1)

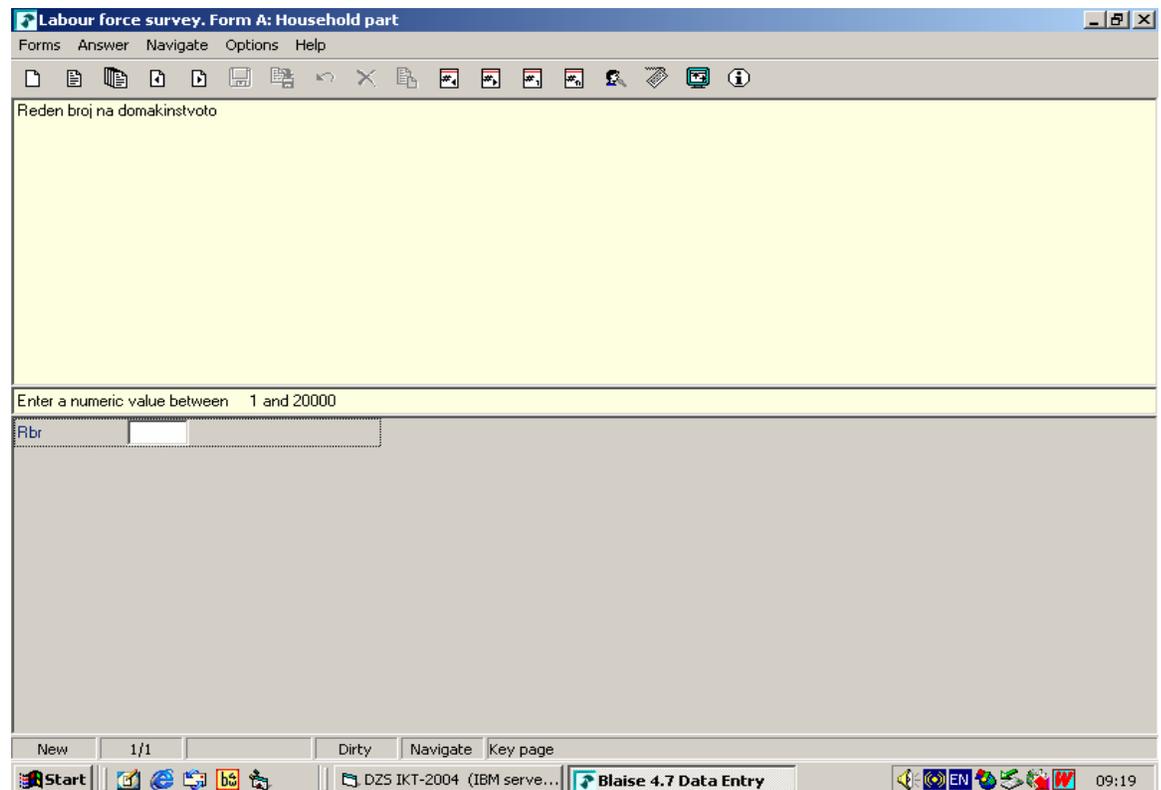
Picture 1



The interface is realized with Visual Basic 6.0

By entering a password and electing the button for data entry for households, persons, non-response, appears the data entry screen –

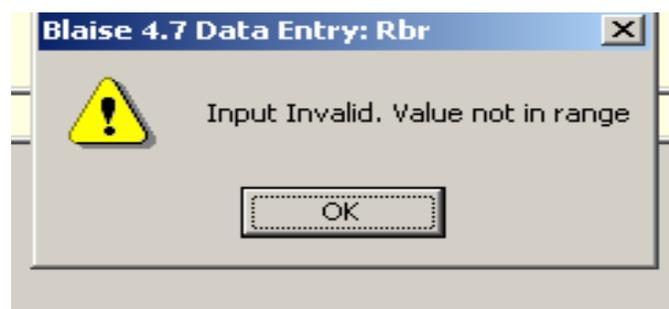
Picture 2



First, the identification of the household is entered, i.e. the ordinal number of the household in the field Rbr (ex. Rbr=15010). Each interviewer gets a list of households to be interviewed.

In case the interviewer entering the ordinal number of the household that is not encoded with the already selected sample (i.e. wrong ordinal number of the household), the program signals that that ordinal number does not exist in the sample (Input invalid. Value not in range) - Picture 3.

Picture 3



After checking the identification data in the sample, starts the data entry for responses for the household - questionnaire A .

The data entering is made in such a way that first household data are entered - questionnaire A - picture 4. Ten, individual data for the persons from the household - questionnaire B - picture 5. In case the household does not want to be interviewed, data on non-response are entered - questionnaire C - picture 6.

Picture 4

Picture 5

picture 6

Labour force survey. Form A: Household part

Forms Answer Navigate Options Help

Pricina za neizvršeno anketiranje

1. Adresata ne postoji na teren  
 2. Prazen stan  
 3. Stanot e demoliran  
 4. Stanot se koristi za delovni nameni  
 5. Domakinstvoto otkazuje da bide anketirano

6. Domakinstvoto e odsutno  
 7. Nemoze da se kontaktira  
 8. Starecko domakinstvo  
 9. Drugo

Reason

Reject  
Absent  
TotNmo  
MemAge  
WorkNmo

New 12/12 Modified Dirty Navigate ARS

Start DZ5 IKT-2004 (IBM serve... Blaise 4.7 Data Entry 09:56

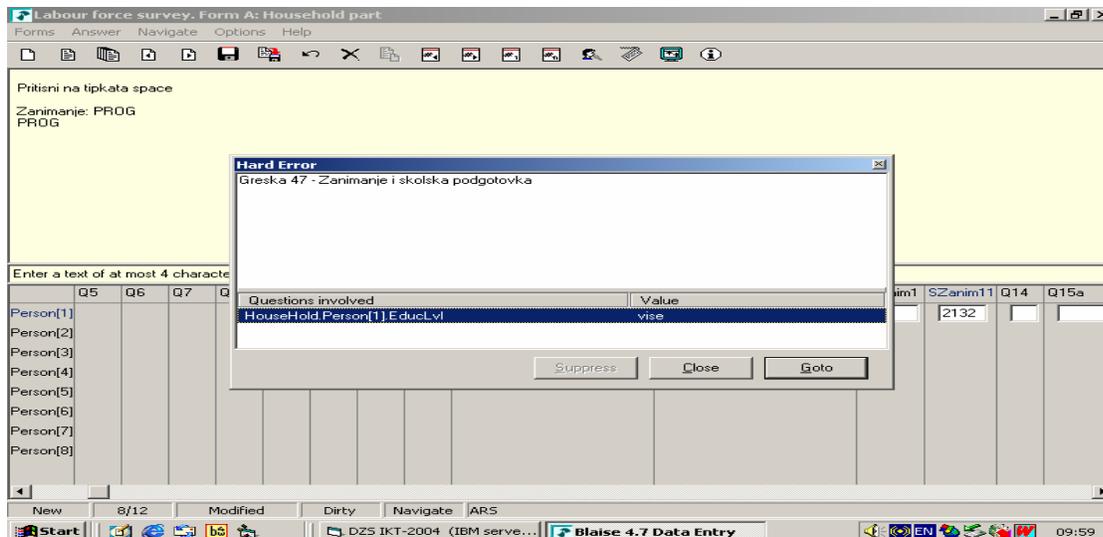
In the entering process all skips are such programmed that the person entering data just follows the filled in fields in the questionnaire and positioning of the right question is made by the program itself.

In the table of the questionnaire for households - questionnaire A, are entered all persons in the households while in the questionnaire for persons - questionnaire B are entered only those being of age 14 and above. Also there is no questionnaire B for permanent disabled persons.

The data that are entered are connected with on-line control (on the spot checking) so that illogical data can not be entered.

In case illogical data are entered an error dialogue appears that points out the error and fields included. In that case one goes to the field to be corrected and changes its content - Picture 7.

Picture 7



By clicking of **Close** and **Go to**, one goes to the fields that should be corrected.

In exceptional cases when we assumed that the answer is correct, we accept the error by pushing the button - of course if it is activated, i.e. the option **Suppress** is included in the program. Such accepted errors are registered and the questionnaires marked as erroneous are listed. From the delivered listing and when errors are defined a correction is made in data entry.

**There is everyday data protection by copying them in several locations. This procedure is made each working day.**

In the beginning the data were entered locally on each computer. Today the data and the programs are placed on a server (windows), and data being entered are recorded in one Blaise file on the server.

**Within the framework of this investigation the State Statistical Office also conducted Test-Survey on households by using lap-top, but after the performed data processing it was decided to continue with collection of data with printed questionnaires.**

In 2005 a test-application was made for entering of the survey material on the field by using lap-tops. The functionalities of the application remained the same.

The further data processing is in the SAS-software and finally the data are put on DB2-6000 basic data base.

From the experience so far before data tabulation and dissemination is made it is necessary to provide a documentation and data storage - the storage of Blaise files,

documentation from technical aspect: field, short description, name of variable, type, length, list of values.

Because we do not have the modules for direct access to DB2, data are transformed in SAS data files where further data processing is made.

The Labour Force Survey is the first BLAISE application in the Office. This application was for a long time one-of-the kind , and finally the advantages that this software provides were understood. So, today in the same software we have also other **investigation** . We expect their number to be higher and higher.

The expert support from the Slovenia in the field of Blaise and realized through SIDA in the recent years, has helped us a lot in organizing and advancing of the work with Blaise.

The Blaise in the Office is used for almost all surveys and lately is used for other research as well.

The strategy of SSO is Blaised to be used more for survey data entry (at the moment the way of data entry form questionnaires in printed form is used). In the future it is not excluded to apply other ways like interview with lap-top, telephone interview or via internet. Among other things it is necessary to establish and maintain the interviewer network meaning engaging skilled and quality interviewers.

From the so far implementation of Blaise we consider that it is exclusively efficient for the purpose it is used. The programmer staff fast and easy is adapted to its usage. It also enables simple, efficient and documented work.

Having in mind the experience up to date, as well as the wish for developing of new technologies, Blaise is one of the solutions for processing of the data from the Agricultural Census 2007.