REPUBLIC OF RWANDA

**MINISTRY OF FINANCE
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POPULATION AND HOUSING CENSUS
(16-30 August, 2012)

DATA ENTRY USER MANUAL

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1. INTRODUCTION

The process of collecting demographic, economic, and social data characterizing each inhabitant of a country or territory at a definite time or period. In addition, the concept of the census sometimes also refers to the summarizing, processing, and publishing of these data. Censuses are conducted to obtain information on the size, composition, and location of the population. In the socialist countries this information serves as the foundation for state administration and for planning the development of the national economy and culture. State censuses are of "enormous state importance" (V. I. Lenin, Poln. sobr. soch., 5th ed., vol. 51, p. 352).

This operation that you are going to take part in is data processing of the fourth Population and Housing Census, and you are involved in its data entry phase which is to enter data into computer using keyboard. The data entry has a big role in all life cycle of the census data processing. In fact, the data entered are the ones to be analyzed and disseminated as the census result.

The software that we will use is CSPro (Census and Survey Processing) for keying data. It is an integrated system of data processing using micro computer and it is a good tool in data entry, data editing and tabulation of census and survey data.

For a good completion of this activity, you will use this manual as a guide for data entry operator. The good comprehension and the respect of strict instructions in this manual are very useful.

This manual is divided in four parts: Brief on the questionnaire, Data Entry organization, Data Entry application and rules of data entry operator.

2. BRIEF ON THE QUESTIONNAIRE

Information that you are going to enter was collected using the questionnaire; the method used was face to face interview. This data includes general characteristics of population, housing and death in the household happen during last previous twelve months.

Two types of questionnaire have been used for this exercise of Population and Housing Census, Private Household Questionnaire and Institutional Household Questionnaire.

2.1 Private Household Questionnaire

Private household questionnaire has four principles sections:
- The first section (L) of the questionnaire is reserved for information identifying the household and is to be completed for each household.
- Section two (P) describes the individual characteristics of each household member over thirty six questions that make this part the very heart of the operation.
- Section three (H) deals with the habitat, type of habitat and its characteristics without forgetting the information about household equipments.
- Section four (M) of Deaths during the last 12 months which describes the deaths of resident members occur in household since the last 12 months preceding the reference night.

2.2 Institutional Household Questionnaire

This questionnaire includes two different sections:
- The first section (L) concerns the identification of the institutional household.
- The second section (P) describes the individual characteristics of each household member and includes only 12 questions.

3. DATA ENTRY ORGANIZATION

Data processing is an important stage in the Rwanda Population and Housing Census of 2012 .It is broken into many phases and data entry is one them. Data entry is planned for 8 months starting at the beginning of November and ending in June 2012. It is traditional keyboard Data entry and will be performed in two shifts; one from 7h00 to 14h00 and another from 14h30 to 21h30.Because of the technical nature of this activity, appropriate staff, time and materials will be allocated for a smooth completion of the census phase. The overall organization is described below.

3.1 Data Entry Staff:

A number of staff who will be responsible for all data entry tasks throughout the phase. They include:
- 1 Head of data processing,
- 2 Heads of data entry,

- 1 IT Hardware and Network Support,
- 20 Team leaders,
- 200 Data entry operators who will be recruited in April 2012.

3.2 Tasks and Responsabilités

3.2.1 Head of Data processing:

Is a professional who oversees all data processing activities from archiving, coding data entry and tabulation and produce relevant reports at specific period of time.

Specifically, he will have to:
> Supervise all aspects of the census data processing,
> Manipulate census data sets and their consolidation at all levels ,
> Contribute to the preparation of edit specifications,
> Write the editing programme,
> Execute the editing preparation and produce the errors statistics to be considered for data validation,
> Prepare data validation documents,
> Prepare data processing reports ,
> Supervise the recycling of rejected EAs,
> Prepare a computer application for monitoring operators' performances,
> Contribute to the production of census results;
> Provide technical support in the process of recruitment of data entry operators;
> Produce census tables;
> Any task given by his supervisor.

3.2.2 Head of Data entry

As the head of a data entry shift, he/she will have to:
o Develop a computerized system for data capture;
o Assist Data processing Head in all data entry tasks;
o Produce operators' performances and give feedback to take action;
o Make available daily production of data entry;
o Produce and analyse the progress reports

- o   Maintain Census data files at all levels(EAs level to upper-level);
- o   Prepare tables formats (Tabulation);
- o   Back up various data files;
- o   Develop a data entry manuals (Operators and team leaders);
- o   Any task given by the supervisor;

3.2.3   Data entry Team Leader:

Is a member of data entry shift who leads a group of 10 data entry operators and is a bridge between data entry operators and head of archiving.

He/ She will be responsible to:

- >   Distribute tasks and EAs to the data entry operators;
- >   Provide technical assistance to operators;
- >   Produce daily reports;
- >   Control discipline in the data entry room
- >   Any task given by his/her supervisor;

3.2.4   IT Hardware and Network Support:

Is a computer technician who will support to solve problem related to LAN, Software and hardware troubleshooting.

He/she will be responsible for the following:

- >   The Local Area Network(LAN), installation and maintenance;
- >   Maintenance of data entry computers and their accessories;
- >   Security of data files on the server;
- >   Security of workstations and protect them against virus;
- >   To provide codes to data entry operators;
- >   To give access rights to staff;
- >   To install data entry application on the network and workstations;
- >   To install servers and make sure that all workstations are networked;
- >   Any task given by his/her supervisor.

3.2.5 Data Entry Operators:

People who are the keyers, who will regularly enter data from questionnaires to the computers.

He/she will be responsible for the following:
> To perform keyboard data entry and generates data sets for each EA.
> To report to Data Entry Team Leader.
> Return questionnaires to the team leader ;
> To observe order and discipline in the data entry room;
> Any other task assigned by the supervisor.

4. Data Capture and Back up:

Census and Survey Processing System (CsPro) will be used as data capture software.

All workstations will be networked in such way that all entered data are kept in the server automatically. Two external hard disks will also be used to back up data and will be done on daily basis by head of data entry.

5. Operators' performances:

Performance is an indicator calculated from .Log file that automatically generated during data entry and includes a number of variables such as Operator ID, start time, end time, keystrokes, bad keystrokes …etc. A Microsoft excel application will be developed so as to produce summary reports on operators' productivity and efficiency. Such reports produced weekly or monthly will help to identify the best operators.

However, operators who will show inefficiency during data entry activity, adequate measures will be taken against him/her as soon as possible.
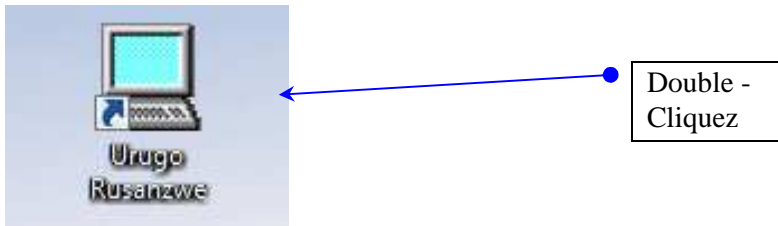
6. DATA ENTRY APPLICATION

The data entry application is designed using CSPro (Census and Survey Processing) which is a software package for editing, tabulating, and disseminating data from censuses and other surveys. It was designed by the United States Census Bureau, Macro International and Serpro.

The questionnaire will be keyed by EA and one EA will be assigned to one Data Entry Clerk. The data of EA will be saved in one file in the hard disk of the computer.
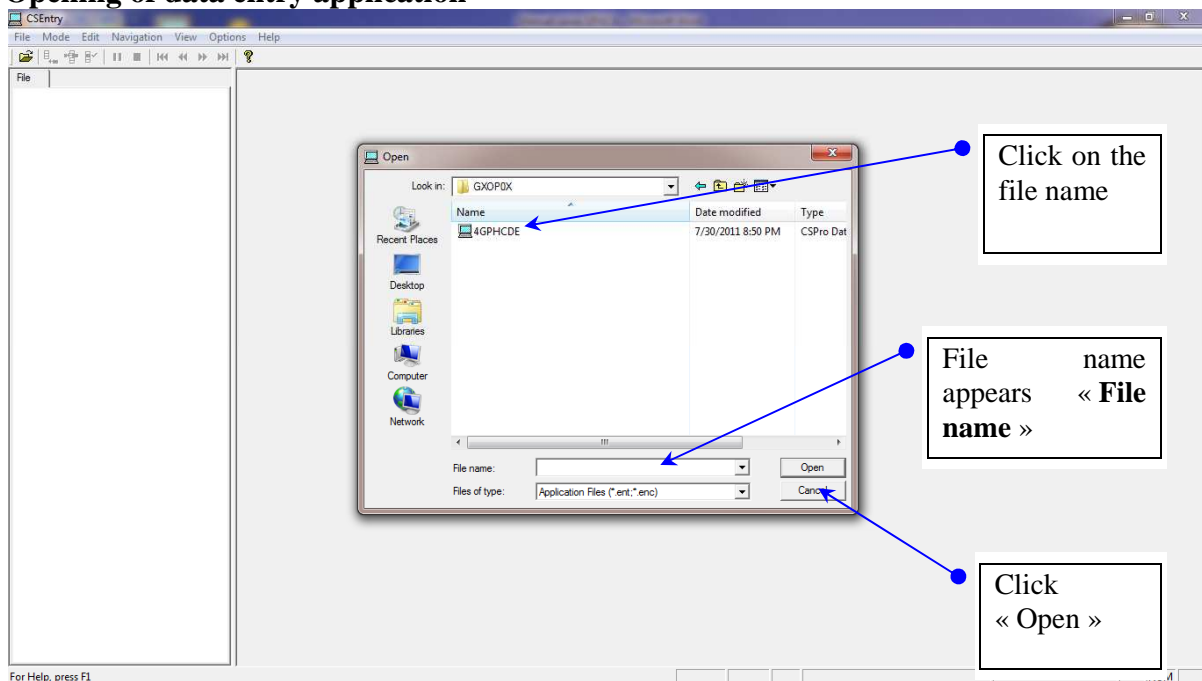
6.1 Getting started

Each data entry clerk has to be identified by "User name" with a "password". Before staring a session of data entry, the Team leader has to give the EA questionnaires to each Data entry clerk.

To start entering data double click on this Icon.

Double - Cliquez

This screen will appear and you have to choose the file

Opening of data entry application

Click on the file name

File name appears « **File name** »

Click « Open »

This bring us to this screen which will help you to rename the file name of EA

Then you will have to enter your Operator id

Enter your operator ID

After entering you operator ID this identification screen will appear

Screen of household localization

This screen helps us to enter information on identification and localization of EA, variables L01 to L07 are keyed once, but other variables L08 to L09 have to be keyed for each case in the EA.

After that you have entered the identification of EA, the Team Leader has to verify, valid and give you the permission to start.

NB. You don't have to enter the code of type of household; the code of 100 is given automatically by the application when it is a private household questionnaire.

Screen for entering the individual characteristics

This screen contains information about the individual characteristics in the household; you have to enter all persons in the household before you get out of this screen. Click on your keyboard **" Ctrl + / "**

Screen for Housing Record

This screen contains information about housing characteristics in the household; you have to enter all information before you get out of this screen. Because this section has one record after entering the last variable, this below screen will appear.

Screen of Death information

At the end of this questionnaire, you will have this window to exit the questionnaire.

Click **"Yes"** for validation of the questionnaire

Continuation of unfinished EA

If you want to continue the unfinished EA

7. DATA ENTRY RULES AND ADVICE

7.1 RULES

Article 1: It is strictly prohibited to use Flash disk and CD in personal computer and it is prohibited to make any copy of data to any removable disk.

Article 2: Whoever is absent and doesn't report himself to work has to justify himself to his supervisor.

Article 3: The data entry clerks will be punished on their discipline and their behavior in general. It is strictly forbidden:
- To chat in the data entry room;

- To delay to work;

- Not to attend without permission;

- To turn on and listen to a radio during working hours;

- To use the phones to call in the Data entry hall;

Article 4: Going out frequently during the working hours of the data entry will be punished. You should not receive any visitors during the working hours except in case it is very important.

Article 5: Each of you is responsible for the computer which he/she is using. You are responsible for the cleanliness of the room.

Article 6: Five minutes after the starting time of the work, the team leader will start to raise the names of latecomers. Latecomers will be strictly controlled and will lead to sanctions provided in Article 3.

Article 7: Automatic capture of statistics will be established at the end of each week. Any Data entry clerk that doesn't meet standards target established by the NISR can simply be fired.

7.2 ADVICE

1. You must wait until the Team Leader gives you the batch questionnaire (EA).

2. Only the Team leader has the rights of creating the EA data file.

3. In case of error in your questionnaire, call your Team leader for help.

4. In case of computer failure, don't touch anything, call for your Team Leader.

5. You are responsible of the EA questionnaires given to you. Please put them in order after entering data.

8. USUAL FUNCTION KEYS

Shortcuts specific to Data Entry

Shortcut Key	Description
Del	Delete currently selected item(s).
Ctrl + **Del**	Delete the currently displayed form.
Ctrl + **A**	Add form to current level.
Ctrl + **G**	Generate a set of forms based on the dictionary.
Ctrl + **K**	Compile application code.
Ctrl + **L**	View currently-selected procedure.
Ctrl + **M**	View currently-selected form.
Ctrl + **Q**	View currently-selected CAPI question.
Ctrl + **R**	Run the data entry application.
F3	Find the next occurrence of specified text.
Up Arrow	Move up one line.
Down Arrow	Move down one line.
Shift + **Up Arrow**	Scroll up, multi-selects rows.
Shift + **Down Arrow**	Scroll down, multi-selects rows.

Page Up	Scroll up one screen (if possible).
Page Down	Scroll down one screen (if possible).
Shift+Page Up	Scroll up, multi-selecting pages.
Shift+Page Down	Scroll down, multi-selecting pages.

Home	Scroll to the beginning of line.
End	Scroll to the end of line.
Shift+Home	Select text from cursor to beginning of line.
Shift+End	Select text from cursor to end of line.
Ctrl+Home	Scroll to the first line of code.
Ctrl+End	Scroll to the last line of code.

CAPI Options

Shortcut Key Description

Ctrl + B	Bold text.
Ctrl + I	Italic text .
Ctrl + U	Underline text

Shortcuts common throughout CSPro

Shortcut Key Description

Ctrl + C	Copy the selection and put it on the Clipboard.
Ctrl + F	Find specified text.
Ctrl + H	Replace the specified text with different text.
Ctrl + J	View full screen.
Ctrl + N	Create a new document.

Ctrl + **O**   Open an existing document.

Ctrl + **S**   Save the active document.

Ctrl + **T**   Show names instead of labels in tree.

Ctrl + **V**   Paste clipboard contents.

Ctrl + **X**   Cut the selection and put it on the Clipboard.

Ctrl + **Y**   Redo the previous undone action.

Ctrl + **Z**   Undo last action.

Ctrl + **F4**   Close the active document.

Alt + **F4**   Exit the application.

Alt + **F6**   Change focus to next window

Shift + **Alt** + **F**Change focus to previous window

F1   Shows help contents and index.