



NATIONAL STATISTICAL OFFICE



Data Entry Operator's Manual

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National Statistical Office
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February 2009

TABLE OF CONTENTS

1.0 INTRODUCTION	3
2.0 QUESTIONNAIRES	3
3.0 VARIABLES	4
4.0 UNIFORMITY AND DATA PROTECTION	5
5.0 OPERATOR MENU	5
5.1 Cluster Font Colour	6
5.2 Actions.....	6
6.0 COVER OF THE HOUSEHOLD SCREEN	7
6.1 Standard CSPro Entry Module Screen	8
7.0 DATA ENTRY	9
7.1 Process	9
7.2 Stop Data Entry	9
7.3 Complete Partially Added Cases.....	10
8.0 MENU AND TOOLBAR SUMMARY	10
8.1 Menu	10
8.2 Toolbar	11
9.0 FILE TREE	11
10.0 FORMS	12
11.0 FIELDS	12
11.1 Repeating Groups of Fields.....	12
12.0 ROSTERS	12
13.0 FIELD COLORS	13
14.0 CONSISTENCY REPORTS	13
14.1 Understanding the Error List.....	14
15.0 SHORT CUTS	15
16.0 COMPLETED CLUSTER(S)	15
17.0 POWER SUPPLY AND BATTERIES	16
17.1 Recharging Laptops	16

1.0 INTRODUCTION

This manual is a guide to ensure the data entry of the Household Income & Expenditure Survey (HIES) is done correctly and completed with the highest quality data.

The survey is currently programmed to use a working model Entry Tool, known as CAFÉ (**C**omputer **A**ssisted **F**ieldwork **E**ditng). This is integrated into the field work, meaning the entire entry job is to be made concurrently with the interviews. Data Entry will be done at the end of each day by the Data Entry Operator, each team has a designated data entry operator however the interviewers may share this role.

The use of CAFÉ is seen as the best choice for ensuring quality data and has been successfully used in other complex surveys in other countries.

2.0 QUESTIONNAIRES

The HIES is a complex application with a hierarchical set of questionnaires. For example, the main questionnaire consists of a household roster and other household information, and there are separate questionnaires for eligible members in the household. The data entry application may then contain two **levels**—one for the household and one for each eligible member in the household. The set of forms corresponding to the household, make up level one. The set of forms corresponding to each eligible member make up level two. Each case would consist of a level one and a variable number of **level occurrences** for level two. Most applications consist of a single level.

The HIES includes the following five questionnaires:

1. The Household Questionnaire (consists of the Household Control Form and the Household Schedule). The entry tool provides a specialized entry module (*HIESh_E*) for both instruments.
2. The Personal Questionnaires (consists of the Personal Schedule and the Personal Diary). A second entry module (*HIESp_E*) is devoted to the entry job for these questionnaires.
3. For the rural clusters, the teams will ask the Community Questionnaire, which will be entered using the (*HIESc_E*) the third dedicated entry module.

3.0 VARIABLES

All the variables are defined in the data dictionaries with names with the form *qspnnx*, where:

q is a suffix indicating the source questionnaire: *A* for the *Household Control*, *B* for the *Household Schedule*, *C* for the *Personal Schedule*, *D* for the *Personal Diary* and *K* for the *Community Questionnaire*.

sp provides a reference to the Section number in the questionnaire (*ss*) and the part in that Section if any (*p*). When the section has only one part, the particle *p* is represented by a dash or underscore (_).

nnx ... gives the question number (*nn*) optionally followed by an extension (*x*) if the question is divided in two or more sub-questions.

Here are some examples:

- *A1_02* is the name of the variable for the question 2 (relationship to head) in the Section 1 of the *Household Control* questionnaire;
- *B1_19H* and *B1_19M* are the variables for the question 19 (time to go to school, in hours and minutes) in the Section 1 (Education) of the *Household Schedule* questionnaire.
- *C2_03* is for the question 3 (last time did look for work) in Section 2 of the *Personal Schedule* questionnaire;
- *K13_02* is the variable name for the question 13.2 (frequency of arrival of post mail) of the *Community questionnaire*.

The nomenclature explained above aims at facilitating the interpretation of the final data at the analysis stage. For some specific cases, actual variable names used in the dictionaries may slightly deviate from this convention for better denoting the originating question.

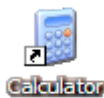
4.0 UNIFORMITY AND DATA PROTECTION

- There should be NO PASSWORD on the laptop
- Desktop background is BLUE, do not change.
- The desk top must be kept free/clear, the only icons on your desk top should be the HIES menu, frequent folder and the Recycle Bin.



There should be NO MUSIC, MOVIES etc downloaded as this increases the exposure of the data to viruses.

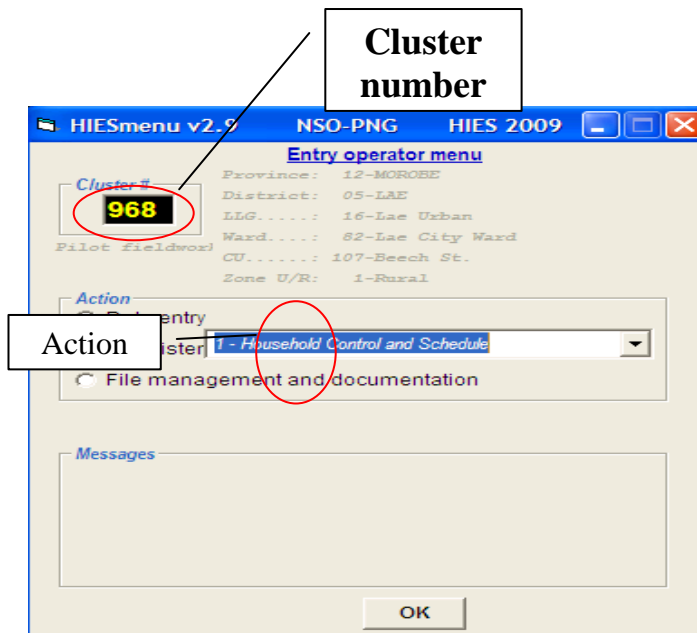
The Frequent Folder contains programs frequently used in data entry. These are



5.0 OPERATOR MENU

To launch the operator's menu, click on the HIES menu icon below.





5.1 Cluster Font Colour

Cluster Numbers once entered and appear in

- BLUE font: are clusters allocated for the Actual Survey Proper.
- YELLOW font: pilot test clusters
- WHITE font: reserve clusters
- RED font: not valid cluster numbers (do not exist in the sample)

Enter the cluster number/sample point and select an action and then a depending on what action you've chosen, *select the type of entry, type of consistency report or support.*

5.2 Actions

a) Data Entry

What kind of questionnaire are you entering?

1. Household Control and Schedule
2. Personal schedule and Diary
3. Community

b) Consistency

What kind of checking do you or your supervisor want to do?

1. Last entered Household
2. All Households in this cluster, including communities
3. All clusters in the workstation

c) File Management and documentation

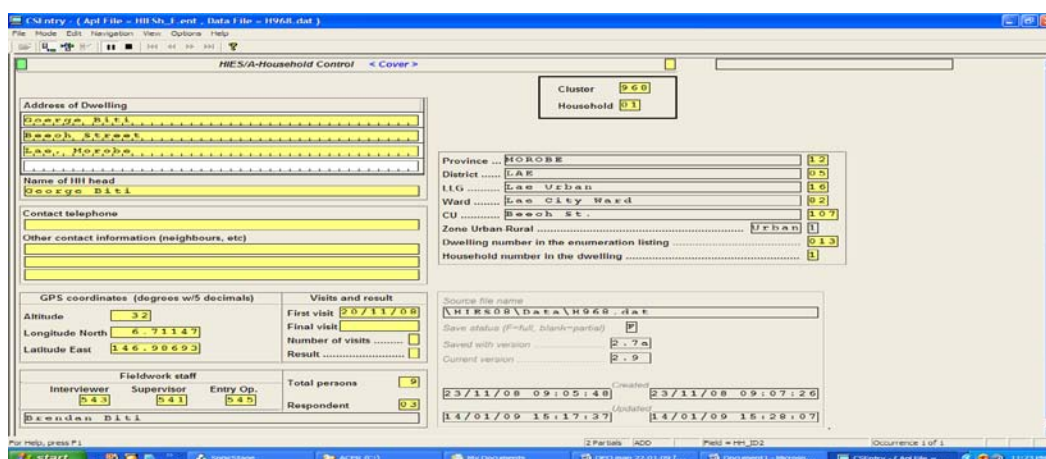
What do you want to do?

1. Save this cluster
2. Archive this cluster (will save and remove the cluster)
3. Clusters in the workstation
4. Review documentation

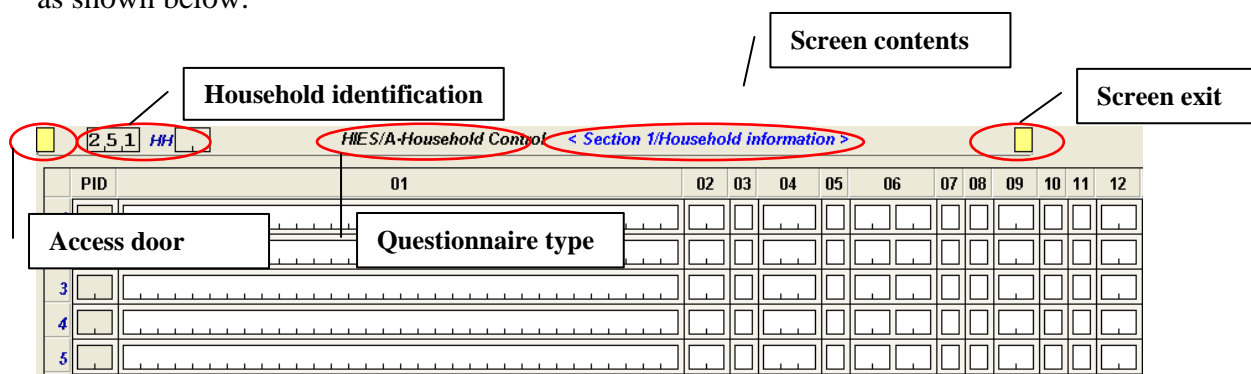
Once you've selected an action, click 'ok'.

The cover screen for the household appears. You are able to work with *only one cluster* at a time, which is normal: you will be entering the information provided by your team, and the team is only a one cluster at a time. The team moves from one cluster to another after there are no more message errors or they have been explained by the supervisor.

6.0 COVER OF THE HOUSEHOLD SCREEN



The entry interface has a cover screen plus one screen for each section. All screens are similar in shape with an upper frame that includes the Household Id, the contents of the screen and two “navigation” fields – one, the *access door*, the other the *screen exit* as shown below.



When you begin entering data in a new file, CSEnter will automatically show the first requiring data entry.

When entering decimal numbers, always key a decimal character to move to the decimal part of the entry.

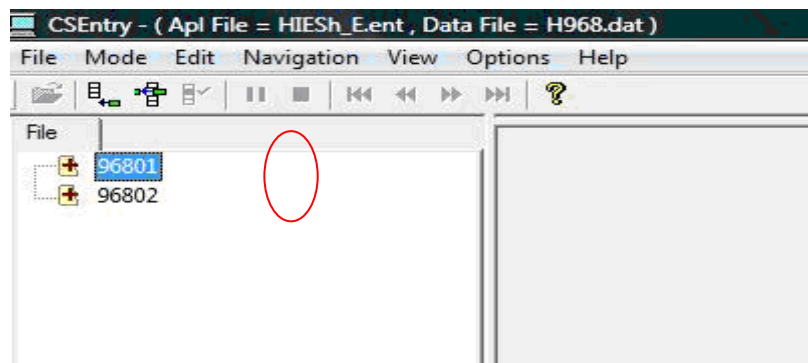
After entering data for each field, you will be required to press <Enter>. If for a given data field two digits can be entered you can enter "02". You can also enter "2" for this field, and press the <Enter> key to advance to the next field. In any case, you can press Enter to move to the next field if the current field is not filled up.

Your application has been designed with skip logic. This means the system may move you automatically depending on the values you key and the underlying logic. You may continue to key data and move forward until the end of the case, or you may use other keys to move around a case before you finish it. Be very careful as a common mistake made by the interviewers is not respecting the questionnaire flow (they forget to skip some questions). In that case you will come back to the automatically skipped field and enter the information appearing in the questionnaire. Remember, your task is enter the data, any error will be detected by the program and it is the supervisors' job to ask the interviewer to correct the error and then ask you to enter again the information.

As you move from field to field, the status bar at the bottom of the screen shows you the name and occurrence number of the current field.

6.1 Standard CSEnter Entry Module Screen

The example below of the file H968.dat has two households (the last two digits of each case in the left-side tree show the household numbers 01 and 02 in the cluster 968).



7.0 DATA ENTRY

The **Data Entry** module allows you to enter data into one or more data files. It uses a previously developed data entry application to control the data entry process.

There are five different modes or states of operation within Data Entry. They are as follows:

- Add -** Entering new cases.
- Modify -** Modifying previously entered cases.
- Verify -** Verifying previously entered cases.
- Stop -** No adding, modifying, or verifying cases in the data file. No form is visible.

A **Case** is the primary unit of data in the data file. A case usually corresponds to a questionnaire.

7.1 Process

All responses are to be entered as written by the interviewer on the questionnaire except in the event that the question is supposed to be skipped but has been answered or there is no response written. For questions that have no answers, do not invent responses.

Take note of all mistakes/blanks and inform the interviewer responsible. This is to ensure the missing information is asked as soon as possible and entered. For each of the above problems the data entry tool will advise you in the form of messages.

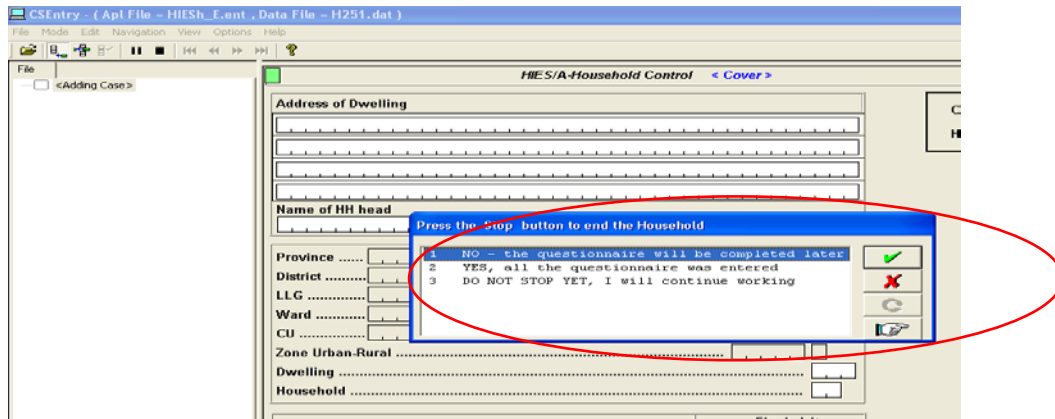
NOTE: If there is no response written by the interviewer, leave the question blank and continue the data entry; however it is a must that the interviewer goes back for the missing information as soon as possible.

For problems that you are unsure of, speak to your supervisor.

7.2 Stop Data Entry

If you have finished entering the questionnaire or that entry session or would like to stop press Esc or Ctrl+S; click Stop on the toolbar; or from the Mode menu select Stop. If you are already stopped this function has no effect.

The following program prompt will appear.




If you are at the beginning of a case or have not made any changes, the session will end immediately.

If you have started, but not completed entry/modification/verification of a case, two or more of the following choices will appear depending on the mode of data entry and whether partial save is allowed, select

Partial Save - Partially save the changes you have made so far and remember the field you are on, so you can complete the work later. Available only if partial save is possible. In add and verify mode, all case id fields must have been entered.

7.3 Complete Partially Added Cases

Partially added cases are marked with  in the File Tree. Pressing **Ctrl+B** toggles the tree between showing all the cases, or only the partially completed cases.

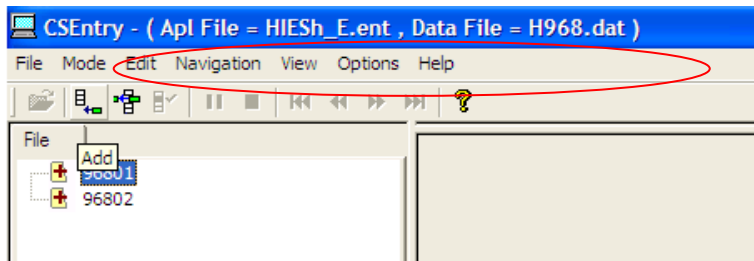
To reload a partially added case, select it in the File Tree and press **Enter**, or double-click the case with the mouse.

You will be asked whether you want to return to the field where you left off, or start at the beginning of the case.

8.0 MENU AND TOOLBAR SUMMARY

8.1 Menu

The CSEnter menu is displayed across the top of the window below the menu bar. It provides access to most features used in data entry. The following menu options are available whenever the right-hand screen is displaying dictionary items.



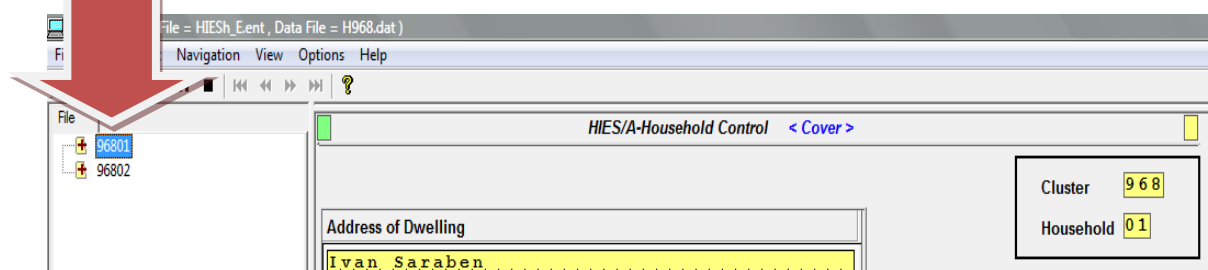
8.2 Toolbar

The CSEnter toolbar is displayed across the top of the window. It provides quick mouse access to many features used in data entry.



9.0 FILE TREE

There are two trees on the left side of the screen. The file tree shows all cases in the data file. In a single level application, the tree shows the complete IDs for each case. The icons in front of the IDs indicate whether the case is complete or partial. For example, the tree might look like:



In the tree above, the first case has been partially verified.

10.0 FORMS

A form appears on the screen when you **Add**, **Modify**, or **Verify** cases. A form contains data [fields](#) and text. Forms may be larger than the actual screen area. The form will scroll automatically to insure that the field you are entering is visible on the screen.

Data entry applications may consist of several forms. As you complete one form the next form is presented. If you move backward from the first field on a form, the previous form is presented.

11.0 FIELDS

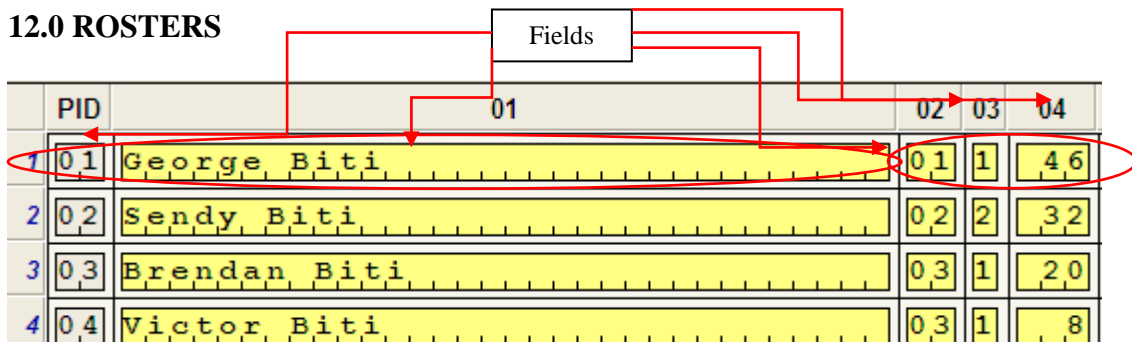
A field is the basic element on a data entry [form](#) into which you enter data. During data entry the cursor moves from one field to the next, according to the order and rules defined by the data entry application. Fields are shown on the form as boxes with tick marks to indicate how many digits or characters may be keyed.

Some fields cannot be entered. They may contain either data previously entered on another form or protected fields. Such fields appear dark gray in color.

11.1 Repeating Groups of Fields

A multiple group is a set of fields that repeats more than once. There are two kinds of multiple groups:

12.0 ROSTERS



The diagram shows a roster table with four rows. The first row is highlighted in yellow. A box labeled 'Fields' has arrows pointing to the first, second, third, and fourth columns of the first row. The first row is circled in red. The table structure is as follows:

	PID		01	02	03	04
1	01	George Biti	01	1	46	
2	02	Sendy Biti	02	2	32	
3	03	Brendan Biti	03	1	20	
4	04	Victor Biti	03	1	8	

The default roster orientation is horizontal, which will show individual fields across the column headings. Each row of the roster therefore corresponds to an occurrence of this group. The group repeats as many times as there are lines.

In the example above, the group contains **five fields** and **four occurrences**.

Navigation through the group is as follows:

- Use the / (slash) key on the numeric keypad to jump to the next occurrence.
- Use the **Ctrl+/** key to jump out of the roster entirely.

13.0 FIELD COLORS

The Data Entry module uses colors to indicate the status of each field.

White

You have never moved this far forward during data entry of this case.

Green

You have passed through this field for data entry input and have not moved backwards over it. If you move backwards over green fields, they become yellow.

PID	01	02	03	04	05	06	07	08	09	10	11	
01	George Biti	01	1	46	2	02	00	1	2		1	2

Yellow

Operator-controlled - You have passed through this field for data entry input and have moved backwards over it or you have skipped over this field during data entry. Green and yellow shows you the "high-water mark", that is, how far forward you have reached in this case.

Gray

You cannot enter the field. The field either contains a previously entered value from another form or is a protected field.

Light Gray

The field takes on the value from the previous case. You can change the value by using the F7 key to back up into it.

In the following example, *Province* and *District* are persistent, that is their values were carried over from the previous case. The operator keyed *HH No.* and *Line number*, then backed up to *HH No.* The *PY Income* field is protected and has been filled in via logic in the program.

14.0 CONSISTENCY REPORTS

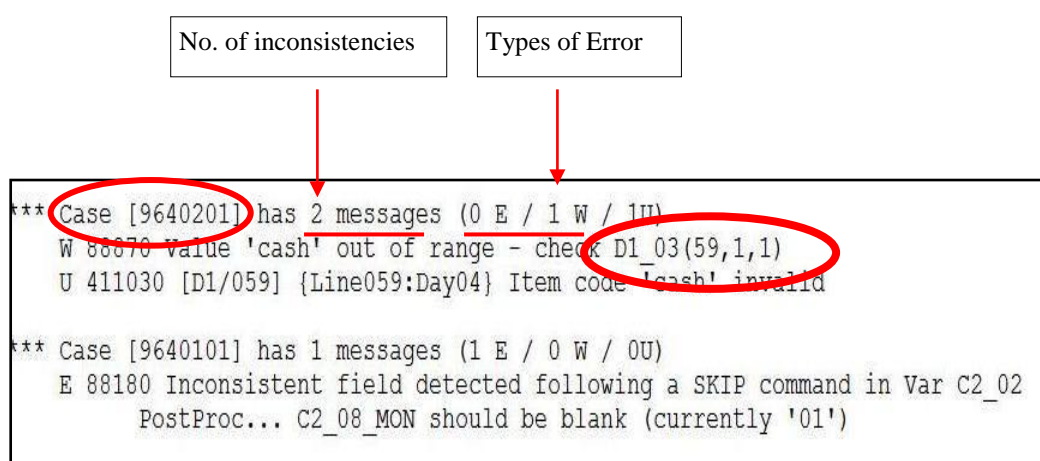
This is a listing (in CPro format) of errors, inconsistencies and minor problems detected by the entry program. This also includes the summary of the number of error messages by type, and other statistics.

The Supervisor will check on a daily basis the errors encountered, this will also assist you with correcting data entry mistakes.

Remember, this is the first time we use CAFÉ strategy in PNG. There is a complete new way to work; the supervisor must provide you the whole set of questionnaires both fully and partially completed during the day. After you finish your daily work, you must call your supervisor and check together the Error List. Check if the error is in the questionnaire or if it is a typo error during the entry before giving the correction instructions to the interviewer.

14.1 Understanding the Error List

Selecting 'consistency report' from the HIES menu will present three options to choose from: 1- Last entered Household, 2- All Household in this cluster, including the communities and 3- All clusters in this work station. Selecting any of this will generate an Error list. Understand how to interpret this list will help you correct errors, inconsistencies and other problems.



The case number is made up of seven numbers, the first three pertains to the cluster number, the next two pertains to the household number and the last two pertains to the respondent's person number.

- As in the illustration, 964 is the cluster number,
- 02 is the household number, and
- The respondent is person 01.

There are three types of inconsistencies- E, U and W. E denotes Error, errors by the DEO, W denotes Warning alerting you an entry is inconsistent and U denotes Unknown

In order to correct the inconsistencies, you must be able to locate where they derive from. Understanding the variables (part 3 of this manual) will help you do that. As in the illustration; **D1_03 (59, 1, 1)** tells you to check Personal Diary page 3 line 59.

15.0 SHORT CUTS

Ctrl + 1	Navigation Menu for fast moving around
Ctrl + 2	Short cut menu
Ctrl + 6	Toggle full coding assistance on/off
Ctrl + 7	Minimal coding assistance for <ul style="list-style-type: none">- Occupations- Economic activities- Measurement units
Alt + J	Toggle Full screen on/off
Ctrl + R	Partial save
Alt + Tab	Go back to the most recently used window
Alt + F4	Exit the program (or any other window)

Go To (F6)

This key allows you may to move to any field (either forward or backward). It is useful if you want to a field that is "far away"; not on the current form. You must know the name of the field to which you want to move. If the field is multiply occurring (on a roster, for example), you may also specify a specific occurrence number. If you leave the occurrence number blank the system assumes the current occurrence number. You can see the field names and occurrence numbers on the status bar at the bottom of the screen as you key data.

Add a note

It sometimes is necessary to attach text to a data field in addition to the data value. For example, the enumerator may have made a notation on the questionnaire which you want to preserve or the field may have an others specify response category and you want to save the specified response. You can save such text by entering a note for the field.

To enter notes for data field, press **Ctrl+N** or from the **Edit** menu select **Edit Field Note**.

When you enter note text, the note is automatically stored in a file named <datafile>.not. This file, like most others in the CSPro system, is a character file.

16.0 COMPLETED CLUSTER(S)

Once the cluster has been completed go to the HIES Entry Operator Menu select File management and documentation, this will give you **support requested** in the box and four options,

1. Save the Cluster
2. Archive This Cluster
3. Clusters in the workstation
4. Review documentations

- **To save the daily data entry**, select option 1.
 - It is a must that you save the data as you are entering. You may experience blackouts, low battery or there may be no power.
- **Once you are satisfied with the data entry, there are no further changes to be made, select** option 2 to archive the data to the drive. This function archives the data, totally removing it from the data entry program.
- When **Modifying or Verifying** a case use the options 3.
- **To review all documentation** use option 4. (Review documentations).

17.0 POWER SUPPLY AND BATTERIES

When in the field, (where there is no electricity), you may experience low power source supply on your laptop. You will use the recharge adaptor kit to recharge your laptop with a car battery.

Keep in mind that:

- Your laptop battery can only last for approximately two (2) hours and less.
- Check the battery icon at the bottom screen of the laptop frequently to see how much power supply you have left.
- It may take 30 minutes or more to fully charge your Laptop on a running engine.

17.1 Recharging Laptops

The following steps illustrates how to recharge the Laptops when it hibernates using a car battery.

1. Remove the recharger adaptor from the packet



2. Choose the cord that will connect to the cigarette lighter plug and connect it.



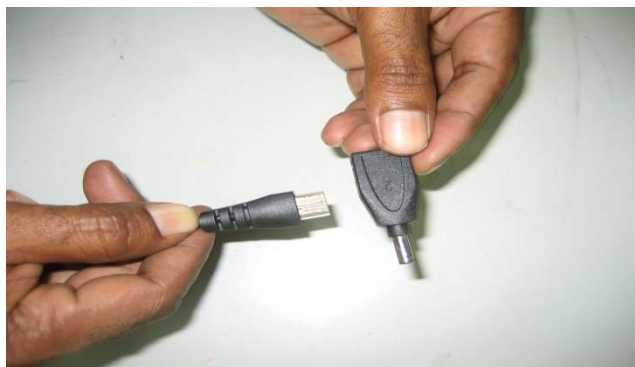
3. At the other end of the plug connect it to the adaptor.



4. Connect the other cord to the other end of the adaptor



5. Choose the laptop connector and connect it with the cord.



6. The adaptor is now ready to use. Connect the adaptor to the laptop and to car battery.



You **MUST** connect the adaptor to an **INVERTER** (for adjusting the power supply) before connecting to the car battery. If your team do not have an inverter, ask your team Supervisor to purchase one before going out to the field.

HAPPY DATA ENTRY