



CSDIETARY

User's Guide to System Setup and Data Entry on a Single Machine

SECTION 1: Quick SETUP guide for CSDietary operation on a SINGLE MACHINE

SECTION 2: Quick guide to creating TECHNICAL DATABASES for CSDietary

SECTION 3: User's guide to DATA ENTRY and REPORTING on a single machine

CSDietary v2.11

Manual last updated: August 2, 2019

SECTION 1: Quick SETUP guide for CSDietary operation on a SINGLE MACHINE

CSDietary is a data entry, management and processing system for 24-hour recall survey data. It was co-created by HarvestPlus and Serpro S.A. and is freely accessible to the public. This document serves as a quick set-up guide for the latest release v2.11 (2019).

ABOUT the system:











CSDietary operates on the CSPROX system for processing statistical data. It is built to sync with a data sharing platform such that the Director can send nutrient databases to Data Keyers and Data Keyers can send their saved data entries to the Director. However, it can also be set-up to operate on a single machine. This guide will provide quick setup instructions for this use.

FIRST, INSTALL CSDietary on your machine:

- We recommend installing CSDietary on your C:\ in a folder titled "CSDietary (default settings)".
- Double-click the CSDietary.exe file, click "Next" twice to accept the default settings. Select "Create a desktop icon", click "Next" then "Install".

SECOND, get to know the CSDietary DIRECTORY:

After installation, find the CSDietary folder on your C:\ or wherever you installed the program and open it. Here you will see a series of folders, a CSDietary.ini text file, and an uninstall program and text file. Below is a quick orientation to the CSDietary directory:

 App	App: System applications – do not edit.
 CSPro	CSPro: CSPro programs. Refer to advanced data management in system manual.
 Data	Data: Technical databases and keyed-in dietary data entries in CSDietary format.
 Dicts	Dicts: Variable dictionaries. Refer to system manual for customizing dictionaries.
 Export	Export: Datasets of all keyed-in dietary data in SPSS, SAS, and Stata format.
 Import	Import: Technical databases in .csv format. You will create and import these into system.
 Report	Report: Datasets of your results in *csv format: (1) the total nutrient intake report presents a summary of nutrient intake per subject; (2) the food level report presents nutrient intakes by food items, recipes and ingredients per subject.
 Tech	Tech: Stores a copy of technical databases – DO NOT EDIT.
 User	User: Stores a copy of your keyed-in dietary data entries – DO NOT EDIT.
 CSDietary.ini	CSDietary.ini: Text file that tells CSDietary where your Tech and User folders are located.

THIRD, if you did not install CSDietary directly on C:\ (default setting), edit CSDIETARY.INI file:

STEP 1: The CSDietary program automatically opens after installation. Exit out of the program.

STEP 2: Double-click on the CSDietary.ini file located in the CSDietary folder.

STEP 3: Edit the second and third lines of the .ini file to tell CSDietary:

- Line 2: The address for the User folder
- Line 3: The address for the Tech folder
- **NOTE!** The order of this information must be maintained

isDirector=1

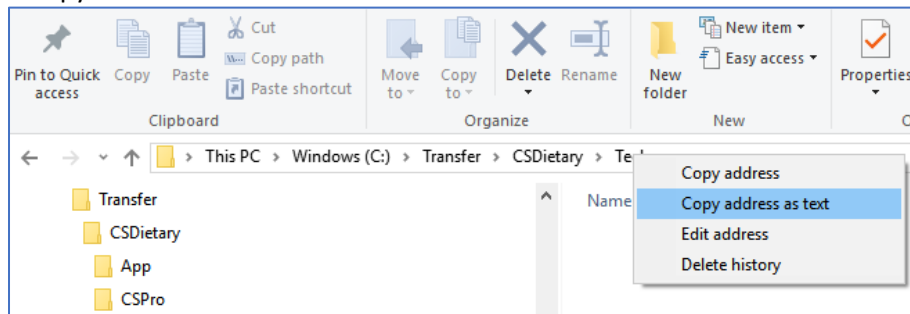
C:\CSDietary\User

C:\CSDietary\Tech

← edit this address as needed

← edit this address as needed

TIP: You can get the folder address by right clicking the folder at the top of a window browser address bar and select “Copy address as text”



FOURTH, open the program by double-clicking on the CSDietary desktop icon.

- If program does not open, refer to system manual located in Report folder for troubleshooting.

FIFTH, select “Call Director’s Menu” and import your technical databases into CSDietary.

STEP 1: Import your sample file following the menu prompt and review the listing for errors

- The listing “GetSampleData.lst” automatically generates once you import your sample file and lists the clusters that were successfully imported into the system. Review results.
- Refer to the [Quick Guide on Creating CSDietary Technical Databases](#) for brief overview and instruction on how to set up the sample file.

STEP 2: Import the nutrient databases following menu prompts (food composition table, conversion factors file, recipes file and retention factors file) and review listings.

- Refer to the [Quick Guide on Creating CSDietary Technical Databases](#) for brief overview and instruction on how to set up the sample file and how to read the listing.

STEP 3: Set your system parameters.

- There are five variables in CSDietary that are optionable to include in data entry. You tell the system *at setup* whether or not you wish to record this information.
- Why? If you do not need this information recorded, the system simply skips past these variables for smoother data entry. It also saves a small amount of memory by leaving these fields blank.
- Whether or not you need to make changes, open the system parameters at setup so the system saves the Param.dat database with the default settings.
- There are five parameters to be set:
 - Use External Data – set this to 2.
 - Use Recall Number – relevant if multiple recalls per subject was recorded.
 - Use Day of Week – the day on which was food was consumed (Sunday, Monday, etc).
 - Use Dummy Variable 1 – a placeholder for additional information you wish to record. Examples may be the source of food (outdoor vendor, corner market, neighbor, homegrown product, etc) or meal type (snack, main meal, etc)
 - This is a numeric field allowing a range of 0 to 99.
 - It does NOT have a drop-down menu, thus the dictionary for this variable should be well-defined and clearly marked in the questionnaire.
 - Use Dummy Variable 2 – a second placeholder for information you wish to record.

STEP 4: Congratulations - you are ready to begin entering your data!

SECTION 2: Quick Guide to creating technical databases for CSDietary

ABOUT the system:

CSDietary operates on the CSPROX system for processing statistical data. It comes as a blank slate, and you will need to import external databases in order to enter your 24-hour recall data. This guide will provide a quick introduction to the databases required to operate CSDietary.

A brief note on CSDietary databases:

When you launch CSDietary for the first time after installation, you will notice that it does not contain any information. You will need to create and import external databases into CSDietary in order to be able to enter your 24-hour recall data. The first database is your survey roster. The remaining five databases, we collectively call the nutrient databases, contain critical information on your foods, ingredients and recipes.

Use the *.csv templates located in the IMPORT folder of the CSDietary directory. As you complete them,

- Do not change their structure
- Do not change column locations or modify/delete column heading names.
- Do not change file names (including capital letters).

There are examples of completed templates in the IMPORTEXAMPLES folder. These are adapted from HarvestPlus Technical Monograph No. 9 “A Food Composition Table for Central and Eastern Uganda.”

The SAMPLE file:

The sample csv file contains the household information from your survey organized into sets defined by a 3-digit cluster number – sets may be geographically defined or administratively defined for data entry purposes.

- It is recommended that no more than 50 households be assigned to a single cluster;
- It is recommended to end your roster of households with 0 in the first cell of the last row, as shown in the template;
- How is this database used?
 - When you are ready to begin entering your data, the system will require you to enter a valid cluster number in order to proceed to data entry;
 - In the household id field of the data entry screen, you will select the household id from a dropdown list of all households in that cluster (reducing data entry error);
 - The recorded dietary data files are saved with a cluster number (PDIET###.dat for the main data entry and SDIET###.dat for the validation data entry);
 - We highly recommend prior to data entry that you organize your questionnaires into sets, and label them with their 3-digit cluster number.

The NUTRIENT DATABASES:

The nutrient databases are critical inputs that you will compile from external resources.

- The food composition table (FCT) containing information on the nutrient content of foods (expressed per 100 g of edible portion) (Fct.csv);
 - We recommend using up-to-date and frequently used resources to gather your information for the food composition table, such as such as the [FAO](#) and [USDA](#).
 - **Note!** We expanded the FCT to include additional nutrients from the original 13 included in the HarvestPlus Technical Monograph No. 9. You will notice that the

templates adapted from the monograph do not include values for these nutrients. You can choose to add nutrient values as you develop your FCT or leave them blank.

- **NOTE!** Any blanks left in the FCT are assumed to be zero by the system when generating the total nutrient intake report.
 - Refer to the System Manual for further instruction.
- The recipes database containing information on the composition of standard recipes (Recipes.csv);
 - The conversion factors database containing information on the correspondence between measurement methods used in your survey and weights in grams (ConvFactors.csv);
 - The food groups database that categorizes foods found in the food composition table into different food groups (Groups.csv);
 - The food codes and food description are the same ones as in the food composition table (fct.csv).
 - In the first two columns (G_Number and G_Descr), you can add numeric codes for food groups and their text description. There are no limitations on the number of food groups or their nature.
 - The retention factors database containing information on the nutrient retention factors depending on foods and cooking methods (RetentionFactors.csv);
 - By default, HarvestPlus works with the USDA retention factors (Release 6, 2003). The USDA retention factors database has been used in many published, peer-reviewed articles from countries where local data has not been made available.
 - CSDietary no longer requires the retention factors database to operate. However, we keep it here as it is an important reference tool for completing the food composition table.

SORTING

In order for the csv files to be successfully imported into CSDietary, you will need to sort the files from smallest to largest according to the following manner. Always access the Excel sorting function through Custom Sort and ensure “My data has headers” has been clicked.

Fct.csv → sort by C_CODE and C_STATE

ConvFactors.csv → sort by conv_codetype + conv_foodcode + conv_method

Recipes.csv → sort by recipe_code

Groups.csv → sort by g_number

RetentionFactors.csv → sort by R_Code

MISSING DATA

For a successful import, please make sure that there are no blank values in the sorting columns listed above. If CSDietary encounters a blank value, then it will assume that this is the end of the file and ignore any values that are listed below the blank row.

RESOURCES

For new users, we recommend referring to two HarvestPlus monographs for guidance on setting up your survey and constructing your databases.



An Interactive 24-hour Recall for Assessing the Adequacy of Iron and Zinc Intakes in Developing Countries

Rosalind S. Gibson, Elaine L. Ferguson

Summary: CSDietary works best when the interactive multi-pass 24-hour recall method is used. This technical monograph provides a detailed description of how to implement the method.

Link: [PDF document](#)



A Food Composition Table for Central and Eastern Uganda

Christine Hotz, Abdelrahman Lubowa, Cristina Sison, Mourad Moursi, Cornelia Loechl

Summary: a detailed description on how to create food composition tables, standard recipes, and conversion factors.

Links: [PDF document](#)

SECTION 3: User's Guide to DATA ENTRY and REPORTING on a single machine

CSDietary is a data entry, management and processing system for 24-hour recall survey data. It was co-created by HarvestPlus and Serpro S.A. and is freely accessible to the public. This document serves as a quick guide to single-machine data entry for the latest release v2.11 (2019). If you plan on entering data on multiple machines, see the Data Keyer's guide to data entry.

ABOUT the system:

CSDietary operates on the CSPROX system for processing statistical data. It is interactive and will prompt you on data selection as you move along.

Getting STARTED:

STEP 1: Double click the desktop icon to open the program.

STEP 2: Enter the cluster number corresponding to your first stack of questionnaires;

Tip: The cluster number will correspond to the cluster and household information you imported from the sample.csv file. For efficiency, have your stacks organized prior to data entry;

STEP 3: Select from the menu "B1... Enter Dietary Data" to begin keying-in your first questionnaire;

STEP 4: Your cursor will be blinking in the Household ID field. Hit the ENTER key and select from the dropdown list; *tab* to advance to next field.

STEP 5: You are ready to key-in data for your first case! → Learn the Navigation Keys and review Tips for Accurate Data Entry;

Know your NAVIGATION KEYS:	
Full screen view:	Ctrl + J
Next field:	TAB or ENTER
Previous field:	SHIFT + TAB
Navigate between screens:	F6
Delete an ingredient, food item or recipe:	F4 (NOTE! Cursor must be in first field of food item/recipe)
Insert an ingredient, food item, or recipe:	F3 (NOTE! For recipes, insert the number lines equaling the number of ingredients + recipe name. Otherwise, insertion will overwrite keyed-in data in the rows below it)
Save an incomplete case:	Ctrl + S and select "Partial Save"
Save a completed case:	With cursor in first empty field of first empty row, hit the <i>Enter</i> and you will be prompted to finish record

TIPS for ACCURATE data entry:

- Keep your head up and read the prompts on your screen;
- If you do not find a food or recipe that you are seeking from the selection prompts, partially save your work and follow the instructions below under the heading "MODIFYING CASES";
- **NOTE!** Ingredients of recipes are marked by an * and food items are not. Select appropriately;
- Keep your cluster of questionnaires in a tidy stack in numeric order;
- Once entered, turn the questionnaire over face down in a second stack.

TIPS for entering data into HOUSEHOLD UNIQUE RECIPES record:

NOTE: If you wish to skip this record, then with your cursor in first field hit the ENTER key and select 'yes' to the prompt "Do you want to finish the record?"

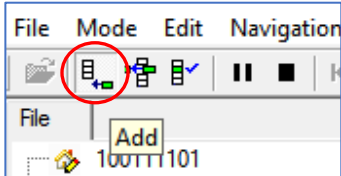
- To enter a recipe, give the recipe a number, *tab* to the next field and follow the prompts;
- In the Recipe Description field, type a short and descriptive name for your recipe;
- In the Ingredient Full Description field, type the name of the ingredient, hit the *Enter* key to get a drop-down list of options, and highlight the appropriate ingredient from the list. Hit the *Enter* key to select it.
 - **NOTE!**: the ingredients are marked by an *
 - To narrow the list of options, you can type in another word next to the ingredient name such as an * or a descriptor.
 - If a drop-down menu does NOT appear and an ingredient is automatically filled in from your query, this means there was only one relevant option.
- Continue to fill in the fields as prompted, using the Navigation Keys;
- For your next ingredient, enter in the recipe number and follow the prompts;
- Once you have finished adding the ingredients of a recipe, you can add your next recipe by providing a new recipe number;
- To delete an ingredient, place your cursor in the first field of that line and select F4. Similarly, insert a line with F3;
- When you are finished recording your recipes, place your cursor in the first field of the first empty row (if not there already) and hit the *Enter* key. You will be prompted “Do you want to finish the record?” – select Yes.

TIPS for entering data into FOOD CONSUMPTION RECALL record:

- Similar to the Household Unique Recipe record, use the navigation keys, follow the prompts, highlight options from drop-down lists with your cursor and hit the *Enter* key to select.
- If a food or recipe is missing from the list of options, partially save your work and modify your nutrient databases following the Quick HOW-TO instructions below.
- When you are finished recording all recall data, place your cursor in the first field of the first empty row (if not there already) and hit the *Enter* key. You will be prompted “Do you want to finish the record?” – select Yes.

Now that you have recorded your first case, see the Quick How-To section as you continue data entry.

Quick HOW-TO section

Change clusters:	Exit out of Dietary Data Entry Menu, then enter in a new cluster #
Add a new case to existing cluster:	<ol style="list-style-type: none"> 1. Enter in cluster # from main menu 2. Select “Enter Dietary Data” from the Dietary Data Entry menu 3. Click on the “Add” icon above the list of saved cases 
Modify a saved case:	<ol style="list-style-type: none"> 1. From Main Menu, enter in cluster # for the case 2. Select “B2 Modify dietary data” 3. Double-click on the case to open 4. Use the navigation keys to insert/delete lines or edit fields.

<u>Add</u> new foods, ingredients, recipes, or conversion factors to your nutrient databases	<p>If you are missing a food or recipe during data entry:</p> <ol style="list-style-type: none"> 1. Partially save your work (Ctrl+S) and exit out of the program; 2. Add your new food, ingredient, or recipe, and their conversion factors to your .csv files in the Import folder; 3. Open the program and re-import your .csv files via the Director's Menu; 4. Go to the Dietary Data Entry menu and "B1 Enter Dietary Data"; 5. Locate the partially saved case in the left column and double-click to open; 6. Continue with data entry.
<u>Modify</u> food composition values in your FCT or conversion factors in your conversion database and update your saved cases	<ol style="list-style-type: none"> 1. Partially save your work (Ctrl+S) and exit out of the program; 2. Make corrections to the .csv files in the Import folder; 3. Open the program and re-import your .csv files via the Director's Menu; 4. Refresh the nutrient calculations for all recorded cases with the updated nutrient databases by selecting "A3... Refresh nutrient calculations" from the Main Menu.
Generate REPORTS	<p>From the main menu, select "Generate Reports" and choose from the list of options.</p> <ol style="list-style-type: none"> 1. The total nutrient intake report is the total daily energy and nutrient intake for each participant; 2. The food and recipe report is the list of foods, recipes and their ingredients, along with the corresponding nutrient values reported by each respondent. NOTE! that the recipe nutrient values are a summation of the nutrient content of ingredients listed below; 3. There are options to report on the validation entry (used in a survey setting with multiple keyers and thus not described here); 4. Reports are saved in the Report folder in the CSDietary directory; 5. They can be regenerated as often as you need; note that each time a report is generated, it replaces a previous version; 6. You can export ALL recorded information by selecting the Export function (C7) from the Director's Menu; the records are exported in STATA, SPSS and SAS formats and can be found in the Export folder in the CSDietary directory.

Because all your data is being entered on a single machine, you can ignore all other menu options.