



CSDIETARY

**Director's Quick Guide to System Setup on Multiple Machines
(paired with Dropbox)**

SECTION 1: Director's Setup Guide (with Dropbox) for MULTIPLE MACHINES

SECTION 2: Quick Guide to creating TECHNICAL DATABASES for CSDietary

CSDietary v2.11

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SECTION 1: Director's Setup Guide (with Dropbox) for MULTIPLE MACHINES

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. This quick guide will instruct you on how to set up Dropbox on Director and Keyer machines, how to install CSDietary on each machine, and how to pair CSDietary with Dropbox such that files can sync seamlessly between machines.

FIRST, set up Dropbox on ALL MACHINES:

STEP 1: Each machine is to have Dropbox downloaded, installed and set up with its own Dropbox account. Refer to www.dropbox.com for further instruction. **NOTE!** We recommend creating Dropbox accounts with institutional email accounts that are known to the Director (not Data Keyers) and that are password protected.

STEP 2: On the Director's machine, set up Dropbox folders named 'Director' and 'Tech' and a folder for each Data Keyer named "Keyer#" and place them in a parent folder named 'CSD':

 CSD	Tip 1 The Tech folder holds the nutrient databases (e.g. food composition table) and other technical files that the Director sends to the Data Keyer machines.
 Director	
 Keyer1	Tip 2 The Keyer folders hold a copy of the saved data entries (PDIET###.dat and SDIET###.dat) that are transferred to the Director's machine.
 Keyer2	
 Keyer3	Tip 3 You can have as many Data Keyers as you wish and can name the folders KeyerNAME1, KEYERcode#, etc.
 Tech	Tip 4 Dropbox orders the folders in alphabetical order; best practice is to have Director's folder sit at the top.

STEP 3: Share the tech folder with all Data Keyers and the Keyer folders with the respective Data Keyer. To do so on Dropbox, right-click on the folder and click the "Share" Dropbox icon. Enter in the email addresses associated with the machine's Dropbox account.











STEP 4: Accept the invitation to download the shared folders on each Data Keyer machine.

SECOND, INSTALL CSDietary on each machine:

- **NOTE!** By default, CSDietary installs on the C:\. *If you have an earlier version of CSDietary installed on your C:\, please move it, delete it, or rename it or else it will get overwritten.*
- Double-click the CSDietary.exe file and the installer will prompt you on where to install CSDietary. We recommend using the default settings – this will install CSDietary on your C:\ in a folder titled "CSDietary. Click "Next" twice to accept these default settings. Select "Create a desktop icon", and click "Next" and Install".

THIRD, get to know the CSDietary DIRECTORY:

After installation, close out the program, find the CSDietary folder on your C:\ and open it. Here you will see a series of folders, and a CSDietary.ini text file. See the quick guide below to the CSDietary directory:

 App	App: System applications – do not edit.
 CSPro	CSPro: CSPro programs. Refer to system manual for advanced data management functions.
 Data	Data: Technical databases, critical operating files, and your saved dietary data entries in CSDietary *.dat 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: Sample and nutrient .csv files that are created/updated by Director and imported into CSDietary. These files are required on Director's machine only.
 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: IGNORE.
 User	User: IGNORE.
 CSDietary.ini	CSDietary.ini: Text file that tells CSDietary if the machine is a Director or Keyer machine and where to sync data files. Note! Edit this file on each machine at setup. See below for instructions.

FOURTH, edit the CSDIETARY.INI file

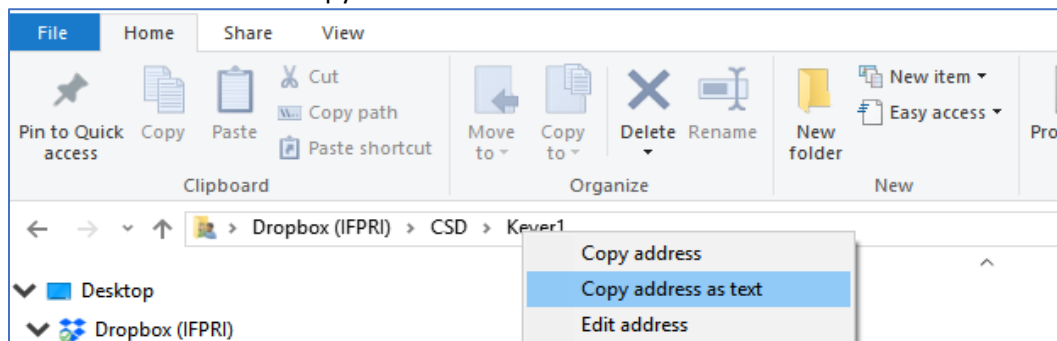
STEP 1: Open the CSDietary folder and double-click on the CSDietary.ini file to open.

STEP 2: Edit the first three lines of the .ini file on each machine to tell CSDietary:

- Line 1: if it is a Director's machine (isDirector=1) or a Data Keyer's machine (isDirector=2).
- Line 2: The address for the Director (or Keyer if on Data Keyer's machine) folder on Dropbox.
- Line 3: The address for the Tech folder on Dropbox.

Example .ini file on Director's machine:	Example .ini file on Data Keyer 1's machine:
isDirector=1	isDirector=2
C:\Users\Username\Dropbox\CSD\Director	C:\Users\Username\Dropbox\Keyer1
C:\Users\Username\Dropbox\CSD\Tech	C:\Users\Username\Dropbox\Tech

- **NOTE!** 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"



FIFTH, prepare and import the *.CSV files on the Director's machine

STEP 1: On the Director's machine, prepare your sample file and nutrient databases using the templates in the Import Folder. Refer to the [Quick Guide on Creating CSDietary Technical Databases](#) below for tips on constructing these databases.

STEP 2: Select "Call the Director's Menu" and import the sample file (menu item C1) and nutrient databases (C2) following the prompts.

- The system will convert the *.csv files into *.dat files that are then saved in the DATA folder and then make copies into the Tech folder on Dropbox.
- Review the listings to ensure importation was successful. You can also double-click the *.dat files in the DATA folder and review that the content was successfully imported.

STEP 3: Set your system parameters.

- There are five variables in CSDietary that are optionable to include in data entry. On the Director's machine, tell the system *at setup* if you want Data Keyers to record this information.
 - 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.
 - There will NOT be a drop-down menu during data entry, 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: Once importation is complete, select "Transfer critical files to cloud" (this only needs to be done once at setup).

STEP 5: Instruct Data Keyers to open the program, select "A2 ... Download technical files" on the main menu and then select "A1 ... Enter cluster # " to enter their assigned cluster number and begin data entry.

UNDERSTANDING Director and Data Keyer PRIVILEGES:

- ✓ The **Director** has access to all CSDietary functions: Main Menu, Dietary Data Entry Menu, System Setup and Data Management functions.
- ✓ The **Data Keyer** has access to all functions on the Main Menu and Dietary Data Entry Menu.

Quick TIPS on DATA MANAGEMENT with Dropbox:

- Remind Data Keyers to TRANSFER the saved/modified data to the Director before exiting out of the Dietary Data Entry Menu.
- If you need to update the nutrient databases, we recommend updating the .CSV files, reimporting, and then instructing Data Keyers to 'Download technical files' to get the latest.
- Note that when the Director downloads data files from the cloud via the Director's menu, CSDietary downloads all the *.dat files from Dropbox sequentially and saves them into the DATA folder – *it will replace a file with the same name that is already in your DATA folder.*
- Thus, if the Director wants to modify a Diet##.dat file, it is recommended that modifications are done after all data has been keyed in and shared with the Director.
- It is also recommended that the Director take a brief look at the what cluster diet.dat files have been saved in the Keyer Dropbox folders and ensure there are no repeated clusters.

SECTION 2: Quick Guide to creating TECHNICAL DATABASES for CSDietary

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 creating technical databases for the latest release v2.11 (2019).

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 data entry begins, the Director will give the Data Keyer a set of questionnaires with an assigned 3-digit cluster number;
 - The system will require the Data Keyer to enter a valid cluster number in order to proceed to data entry;
 - In the household id field of the data entry screen, the Data Keyer will select from a dropdown list of all household ids 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);
 - **Note!** All questionnaires for a given cluster must be entered on the SAME machine.

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 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](#)