CSDietary
User's Manual

CSDietary v1.11
Manual last updated: March 30, 2011

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1. Introduction

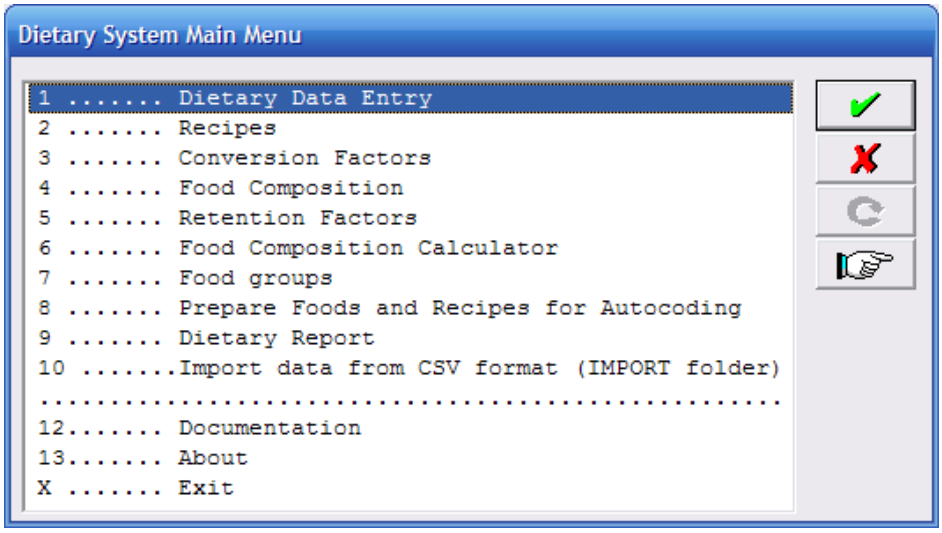
1.1. Overview of features

CSDietary was designed to facilitate the management of quantitative 24-hour recall (24HR) dietary intake data. The software includes options to:

- Organize 24-hour recall data entry (option 1);
- Manage recipes, conversion factors, food composition, retention factors and food groups databases in the software (options 2, 3, 4, 5, and 7, respectively);
- Calculate nutrient content of cooked foods based on raw foods using adjustments for moisture content and nutrient retention factors (option 6);
- Import and manage food composition tables, standard recipes, and conversion factors with data from external databases (option 10);
- Report results immediately after the end of data entry either in a long or a short report (option 9). The long report presents nutrient intakes data by food items and ingredients for each subject. The short , an aggregate of the long report, provides information on daily total nutrient intake per subject;
- With just a few clicks recalculate everything and generate new intake results if modifications are subsequently brought to any of the databases.

Please note that CSDietary works best when the interactive multi-pass 24-hour recall method is used. For a detailed description of that method, please go to:
http://www.harvestplus.org/sites/default/files/tech08.pdf

Additional copies of CSDietary can be downloaded from:
ftp://ftp.cgiar.org/ifpri/MouradM/DietaryInstallJan142010.zip



1.2. Points of contact

If you have questions or comments about this software, please contact us at harvestplus@cgiar.org.
You can also contact Mourad Moursi from HarvestPlus at m.moursi@cgiar.org.
We will do our best to help you with any difficulties or issues related to this software. In order for us to help you in the most efficient way, please refer to section 8 "References" and section 9 "FAQ" of this document.
Please note that the software is still in development and testing. Therefore, it might still be prone to some bugs and errors despite our continuous efforts to eliminate them.

1.3. Organization of the manual

This manual will first show you how to install CSDietary on your computer and how to make sure that you have the adequate software environment for it.

Once you get started, the manual will follow a set of steps that should make the processed survey results (meaning nutrient intakes) immediately available after data entry.

We will first detail the process required for importing food composition, recipes, and conversion factors databases from external sources and how to complete and manage them with CSDietary.
Then, we will move on to the data entry procedure which draws information from the aforementioned databases.
Following that, we will show you how to generate results in both the long and short format and explain differences between the two. If you ever need to correct errors or update values in any of the previously imported/entered databases, we will also explain how to automatically recalculate new results based on those changes with just a few clicks.
Finally, we will show you how to change certain parts of CSDietary to better suit your needs including adding new measurement methods and labels, changing the language of data entry screens and modifying prompt messages.

Generating a workflow could be the most tricky part of the manual, especially for non-specialists and/or those who do not have a lot of experience with conducting 24-hour recall surveys in developing countries. If you are unfamiliar with 24-hour recalls, we strongly recommend that you read our reference document on the topic at:
http://www.harvestplus.org/sites/default/files/tech08.pdf

1.4. Acronyms and abbreviations

FCT Food Composition Table
UAC User Account Control

2. Getting started

2.1. System requirements

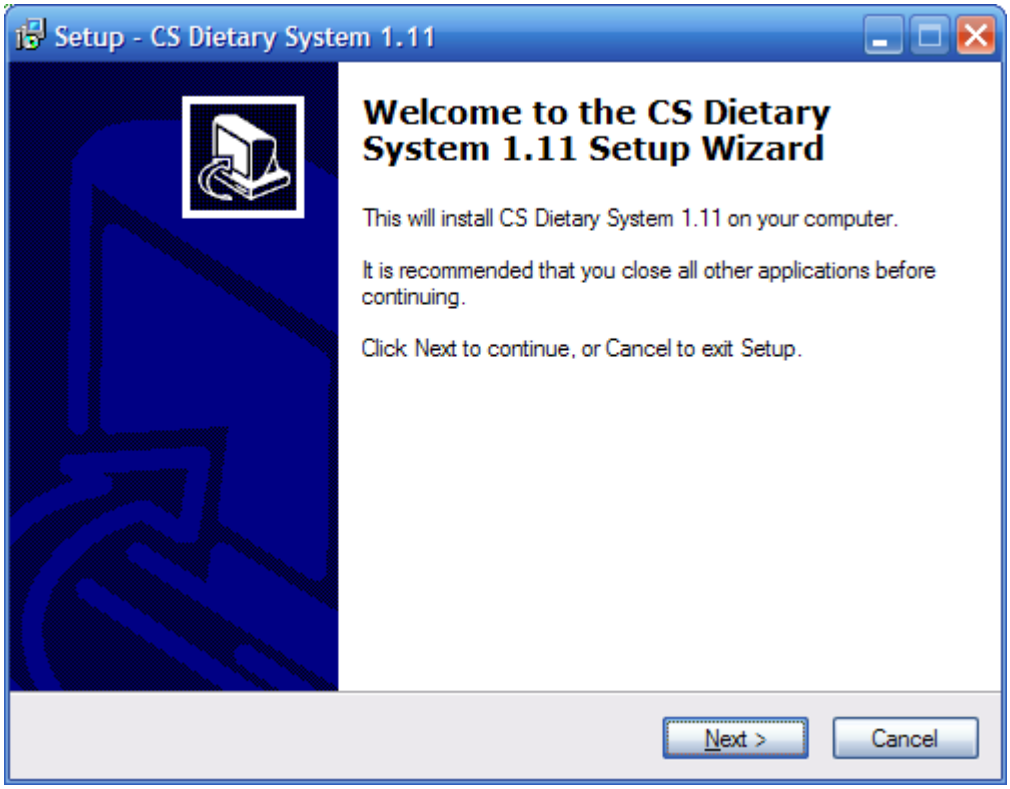
Minimum configuration: PC with Intel Pentium or AMD Athlon processor. 512 Mo RAM. 31 Mo of free space on the hard drive. Windows XP SP2 or higher with Microsoft Excel.
Recommended configuration: PC with Intel Core or AMD Athlon X4 processor. 2 Go RAM. Windows XP SP2 or higher with Microsoft Excel.
Please note that CSDietary will not work with older versions of Windows such as Windows Me or Windows 2000.

In order to function properly, CSDietary requires the installation of Microsoft Visual C++. Normally, it is included in recent Windows releases so you do not need to worry about it. However, if Visual C++ is not available on your machine, you will not be able to launch CSDietary after installation.
If this happens, please download and install Visual C++ at:
ftp://ftp.cgiar.org/ifpri/MouradM/vcredist_x86.exe

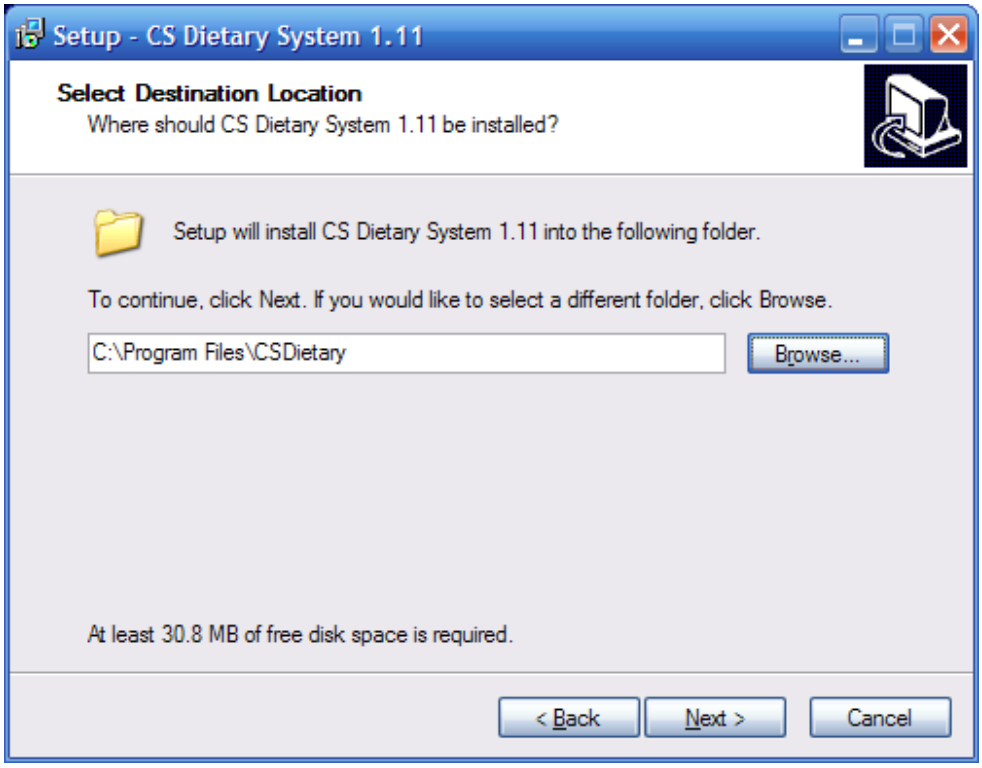
2.2. Installation procedure

2.2.1. Windows XP

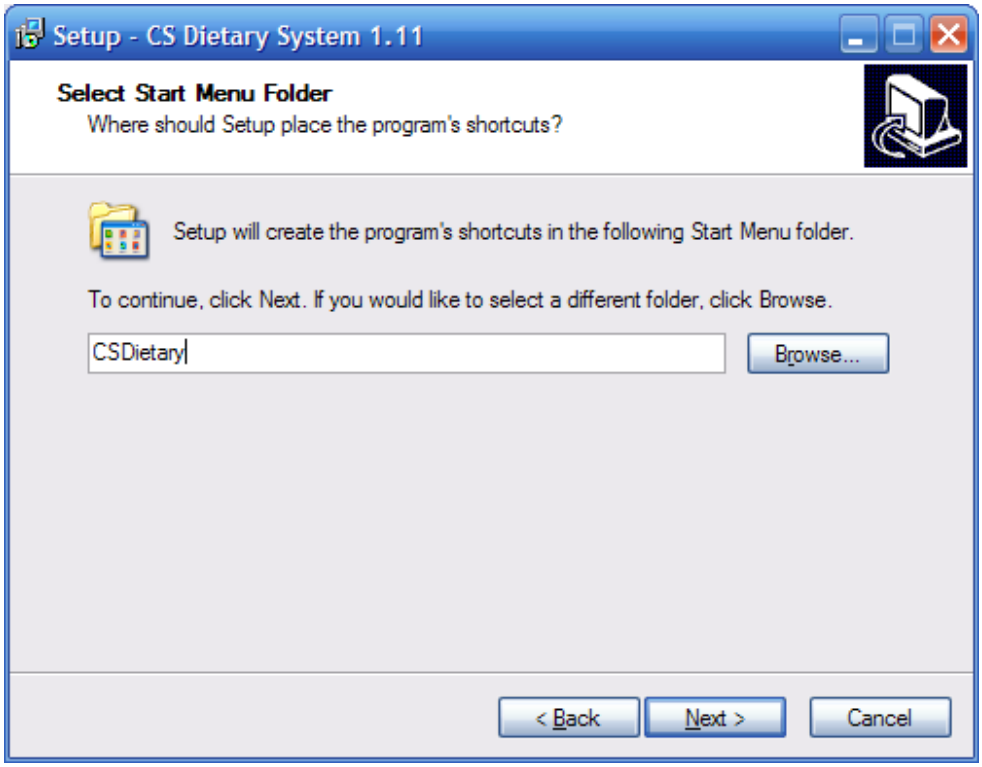
Step 1 – Start by closing all other applications. Double click on the setup file (DietaryInstall.zip) to start installing CSDietary on your computer;



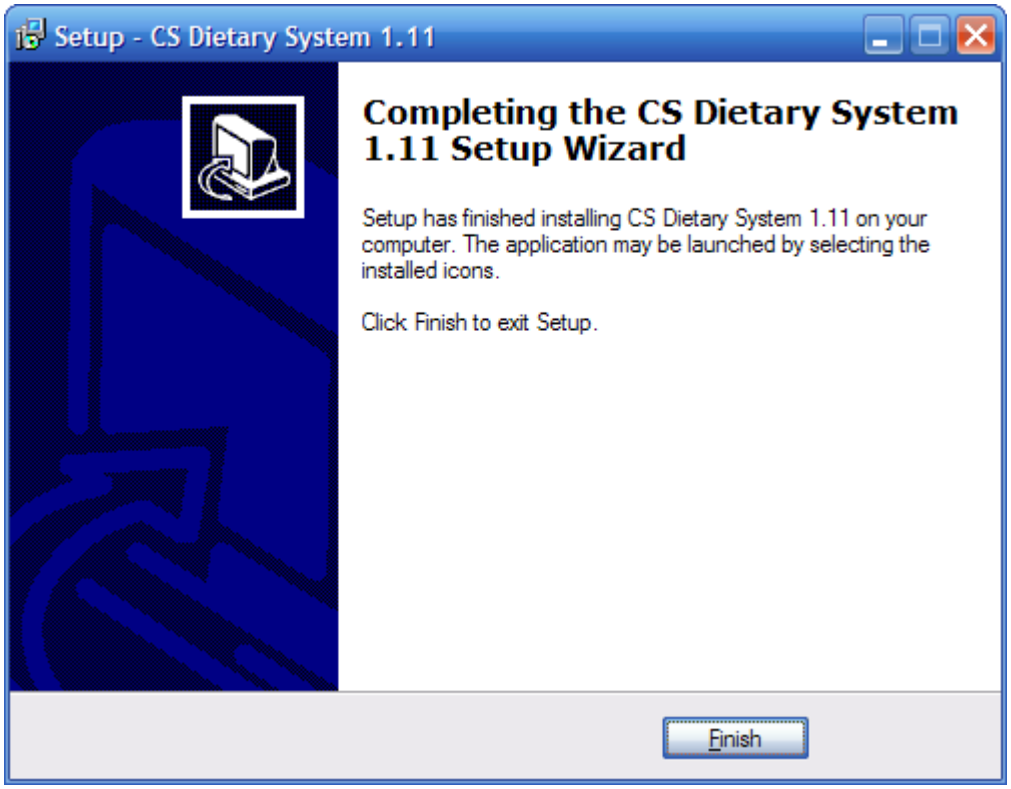
Step 2 – Click next;



Step 3 – By default, setup installs CSDietary in C:\Progam Files\CSDietary. If you wish to install it in a different folder, directly type in the path or click the "browse" button;



Step 4 – Click next twice;



Step 5 – Click finish to complete the setup.

2.2.2. Windows Vista and Seven

In these two versions of Windows, a security feature called User Account Control (UAC) can prevent CSDietary from functioning properly. UAC is supposed to increase Windows security by severely limiting what can be written to the "C:\Program Files" folder and all its subfolders.

The problem comes from the fact that by default CSDietary data files are all located in "C:\Progam Files\CSDietary\data"; this is where the software saves files whenever 24-hour recalls are entered or food composition tables are imported for instance. By denying CSDietary access to that data folder, UAC prevents it from saving any new information and therefore the program ceases to function correctly. Unfortunately, UAC may continue to interfere with CSDietary's normal function even if you choose to install in a different folder or drive such as "D:\CSDietary" (if you have a D drive).

In order to avoid that problem, you will have to turn off UAC through the control panel.

To turn off UAC:

- Save your work and close all open applications
- Go to Control Panel-> User accounts -> Turn user account control on or off
- Click Continue
- Uncheck the "use UAC" option
- Restart your computer

2.3 Directory structure

After installing the software, the following directory structure will be generated under the installation folder (typically "C:\Program Files\CSDietary"):

CSPRO : The CSPro software (ready to run)

DATA : To store the Dietary data base in **CSPro format**

IMPORT : To store the Dietary data base in **.csv format**

IMPORTEXAMPLES : Contains an example of the Dietary data base in .csv format

REPORT : To keep the report listings

3. Importing and managing databases in CSDietary

3.1. External databases and CSV templates

When you launch CSDietary for the first time after installation, you will notice that it does not contain any information.
You will need to import external databases and eventually complete them using CSDietary in order to be able to enter your 24-hour recall data.

CSDietary uses 5 databases:

- The food composition table containing information on the nutrient content of foods (expressed per 100g of edible portion) (Fct.csv);

- 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 databases that categorizes foods found in the food composition table into different food groups (Groups.csv);

- The retention factors database containing information on the nutrient retention factors depending on foods and cooking methods (RetentionFactors.csv);

These databases can be compiled from external sources and imported into CSDietary using Comma-separated (delimited) (*.csv) templates that can be directly opened and managed using Excel or any other similar software. Some databases such as the food composition table and the retention factors database already contain useful figures gathered from gold standard sources such as the FAO and USDA. When you first install CSDietary, you can find all 5 csv templates in the "CSDietary\ImportExamples" folder. As explained in Section 3.9, these files must be modified to the needs of your dietary assessment and located in the IMPORT folder before they can be imported into CSDietary.

When completing the csv files, do not change their structure. Do not change column locations or modify/delete column heading names. Do not change file names (including capital letters).

3.2. The Food Composition Table

The food composition table (FCT) template is called Fct.csv. An example can be found in the "CSDietary\ImportExamples" folder. This table provides information on the nutrient composition of foods expressed per 100g of edible food.

The table below provides a description of the variables found in the Fct.csv file.

Table 1: Variables in the Fct.csv file

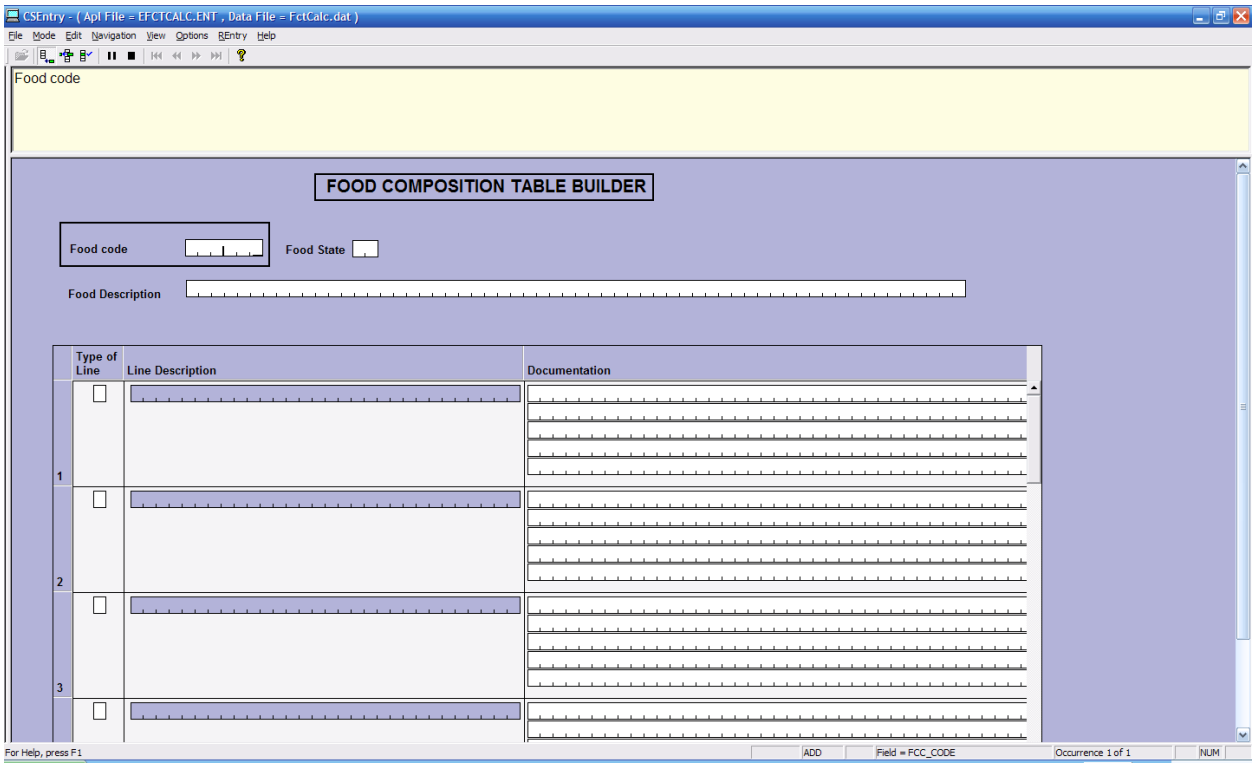
Variable name	Description	Variable values/comments
C_CODE	Numeric food code	There are no restrictions on the codes given to foods as long as they are not duplicated
C_STATE	Cooking state code	1=raw; 2=boiled; 3=steamed; 4=fried; 5=roasted; 6=baked; 7=no state; 8=not applicable
C_DESCR	Food name	
C_DRYMATTER_G	Dry matter (g)	
C_WATER_G	Water (g)	
C_ENERG_KCAL	Energy (kcal)	
C_PROTEIN_G	Protein (g)	
C_LIPID_TOT_G	Lipid (g)	
C_CARBOHYDRT_G	Carbohydrates (g)	
C_FIBER_TD_G	Fibers (g)	
C_CALCIUM_MG	Calcium (mg)	
C_IRON_MG	Iron (mg)	
C_ZINC_MG	Zinc (mg)	
C_VIT_C_MG	Vitamin C (mg)	
C_THIAMIN_MG	Thiamin (mg)	
C_RIBOFLAVIN_MG	Riboflavin (mg)	
C_NIACIN_MG	Niacin (mg)	
C_VIT_B6_MG	Vitamin B6 (mg)	
C_FOLATE_TOT_MCG	Total folate (µg)	
C_FOLIC_ACID_MCG	Folic acid (µg)	
C_FOOD_FOLATE_MCG	Food folate (µg)	
C_FOLATE_MCG_DFE	Folate DFE (µg)	
C_VIT_B12_MCG	Vitamin B12 (µg)	
C_VIT_A_IU	Vitamin A (IU)	
C_VIT_A_MCG_RAE	Vitamin A (µg RAE)	Please be careful when using older food composition tables as units for vitamin A will be different than µg RAE
C_RETINOL_MCG	Retinol (µg)	
C_ALPHA_CAROT_MCG	Alpha carotene (µg)	
C_BETA_CAROT_MCG	Beta carotene (µg)	
C_BETA_CRYPT_MCG	Beta cryptoxanthin (µg)	

3.3. The Food composition calculator

CSDietary includes a option for the calculation of the nutrient composition of cooked foods based on their raw forms.

Step 1 – Import the nutrient composition of raw foods using the Fct.csv template (see section 3.9 for a more detailed description);

Step 2 – Click on food composition calculator from the Dietary System Main Menu;



Step 3 – Start entering information. You can press Ctrl+J for a full screen display. For a complete listing of the most commonly used shortcuts please see Section 3.2.2

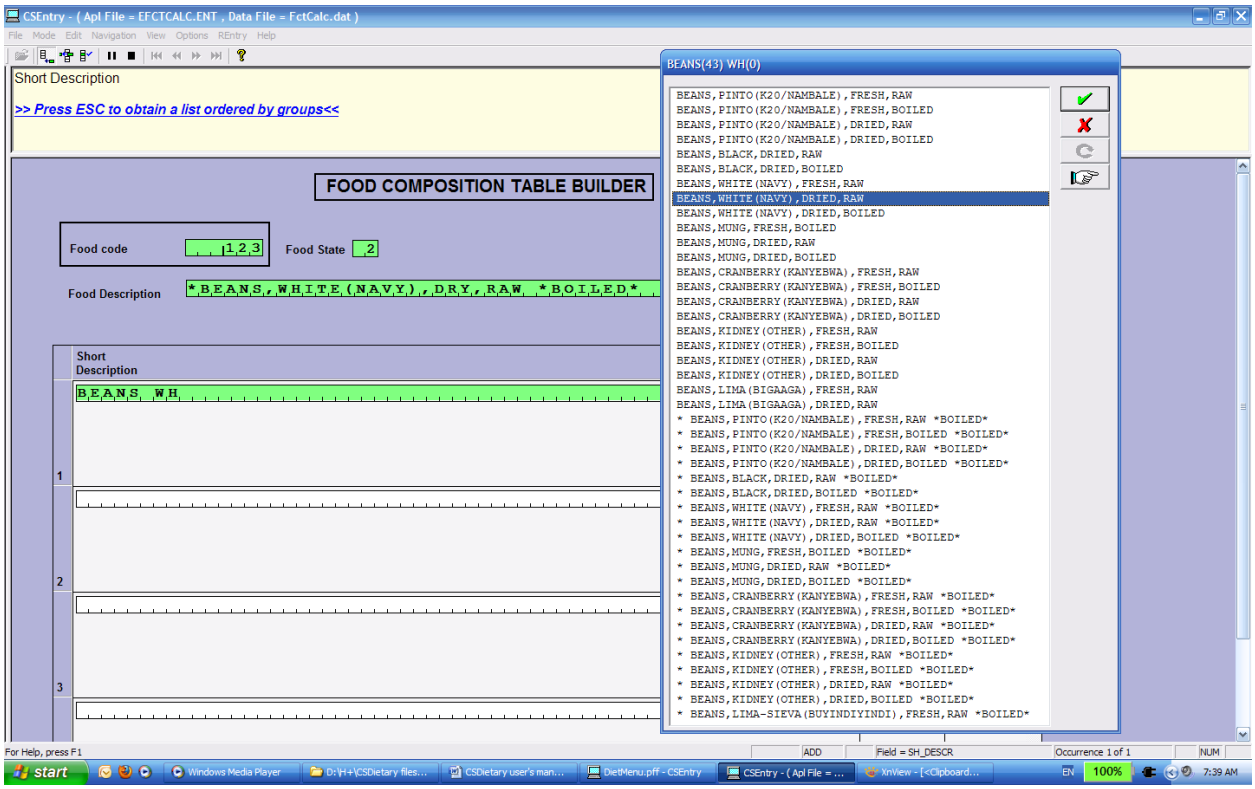
Food code: you can enter any numeric code of your choice as long as it is not already used for another food in the FCT.

Food state: choose the cooking method from a drop down menu.

Food description: is the name you would like to give the food. It is good practice to clearly distinguish cooked foods from their raw counterparts. In the csv examples provided, you will notice that we used stars (*) to create the hybrid codes in the following way: * Food name,Food name,raw *Cooking method*. For instance, *Beans,White(Navy),dry,raw *Boiled*.

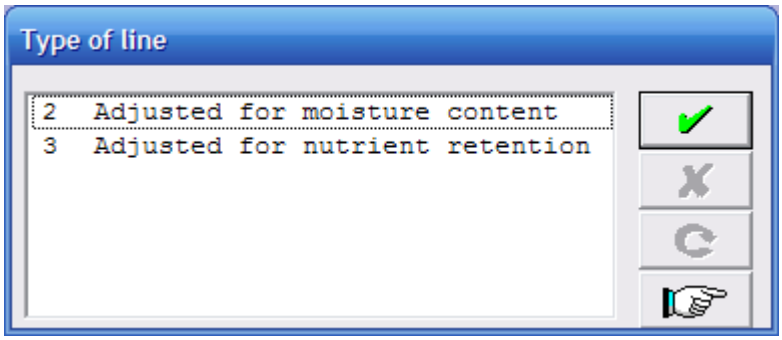
Type of line: choose raw.

Documentation: enter information about which raw food you started from. This information is intended to help you and other retrace your decisions and actions.



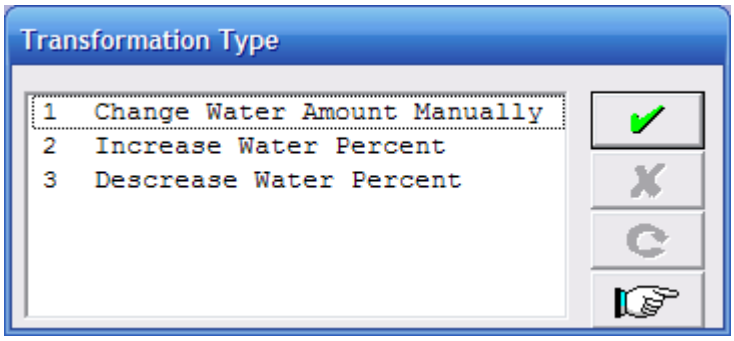
Short description: type in the first few letters of the food and choose the raw form from the drop down menu. When you hit enter, CSDietary will display information nutrient composition of the raw food, continue to hit enter to confirm.

After completing the Short Description you will then be shown the raw nutrient content of the food item you have selected. Press enter to confirm the data available for each nutrient.



Adjustment method: You will then have to choose which kind of adjustment you would like to do. Whichever adjustment you choose, CSDietary will again invite you to enter some information about your decisions and actions in the documentation field so that your steps can be retraced.

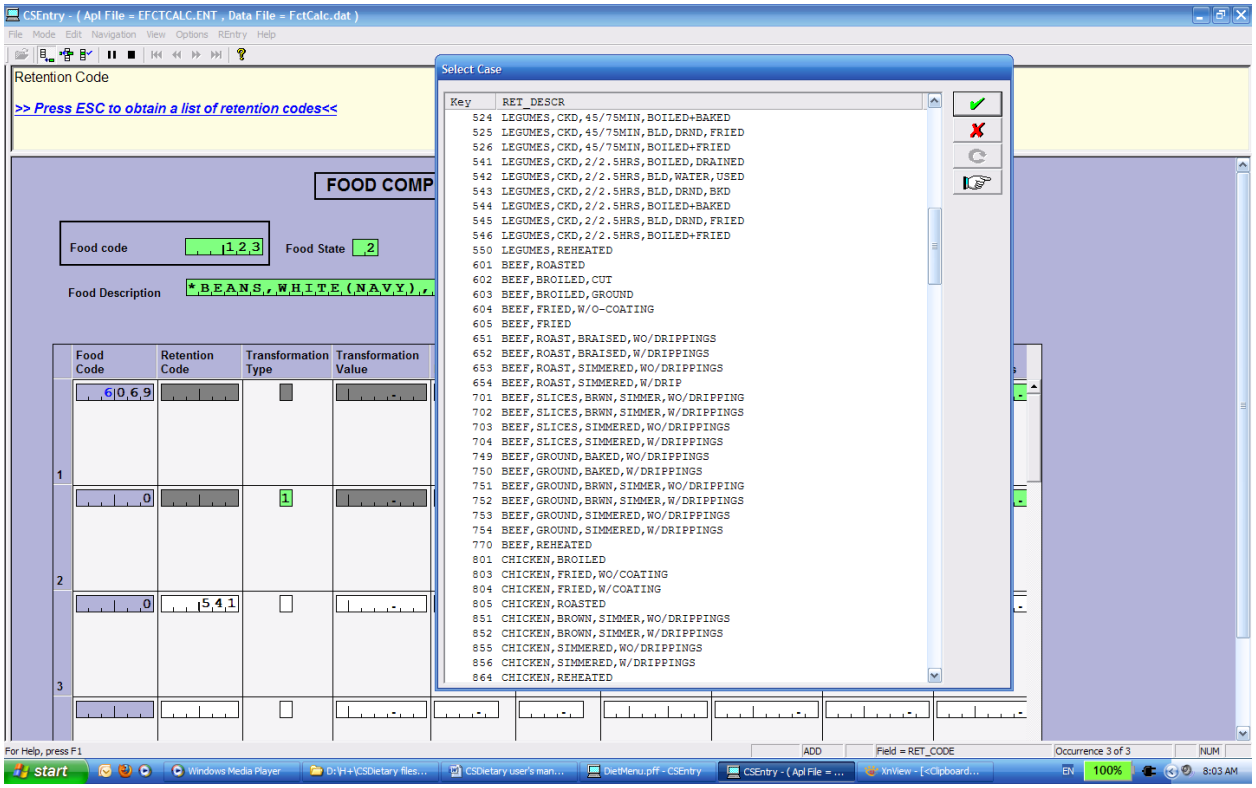
Adjustment for moisture content



CSDietary allows you to adjust moisture content either by directly entering the amount of water after cooking or by indicating the percent change in water content. These values can be found in food composition tables and documents on losses due to cooking. CSDietary will then apply changes automatically, keep pressing enter to confirm.

Adjustment for nutrient content

Adjustment for nutrient content is generally done for all cooked food items and recipe ingredients. In the retention code field, press escape (ESC) to open up a drop down menu with retention factors available. These retention codes are those found in the Retention.csv file. Once you choose the retention factor, CSDietary will recalculate the composition automatically. Keep pressing enter to confirm. Press enter one last time when CSDietary asks for confirmation to save the newly created food.



After entering adjustments for nutrient retention or moisture content you will be shown the cooked nutrient content. Press enter to check each nutrient. After you have completed input of cooked foods leave a blank space in the roster in order to finish the form. Press stop symbol in the top bar in order to return to the blank screen and press X in the window to return to the Dietary System Main Menu.

3.4. The standard recipes database

Information on standard recipes composition is contained in the Recipe.csv file of which an example can be found in "CSDietary\ImportExamples".

Table 2: Variables in the Recipe.csv file

Variable name	**Description**	**Variable values/comments**
recipe_code	Numeric recipe code	There are no restrictions on the codes given to recipes as long as they are not duplicated
recipe_descr	A description of the recipe	
recipe_type	Indicates whether the recipe originates from field observation or is calculated based on an existing recipe (modified)	1: standard recipe 2: modified standard recipe
recipe_type_descr		These are standard recipes
ingr_code	Numeric ingredient code	This code is the same as the food code that is found in the FCT
ingr_descr	A description of the ingredients	
ingr_fraction	Proportion of each ingredient in the recipe	This proportion does not include moisture content
ingr_fraction_type		1: gram/volume fraction 2:grams fraction
ingr_fraction_type_descr	Proportion type	Gram fraction or gram/volume fraction

3.5. The Conversion Factors database

The conversion factors measurement methods file is called ConvFactors.csv. An example can also be found in the "CSDietary\ImportExamples" folder. This file contains information on the correspondence between measurement methods used for your survey and corresponding weight in grams.

The measurement methods and codes shown in table 3 are those built into CSDietary by default. However, you can modify/add new measurement methods of your own and they will work with CSDietary as long as you provide the conversion factors for them. For more information on this feature, please refer to section 7.2 of this manual.

The table below provides a description of the variables found in ConvFactors.csv.

Table 3: Variables in the ConvFactors.csv file

Variable name	Description	Variable values/comments
conv_codetype	Variable distinguishing between food item and standard recipe	1= food item 2=standard recipe
conv_foodcode	Food or recipe code	You can choose any numeric code as long as it remains unique to the food or recipe (This code is the same as that which is used in the FCT)
conv_food_descr	Name of the food or recipe	
conv_method	Numeric code for the measurement method used with the food or recipe	1= direct weight 2=volume 3=length 4=standard volume 5=photo (size) 6=unit 7=playdough
conv_method_descr	Text description of the measurement method (ex. volume, photo)	
conv_stdvol	Numeric code for the standard volume used. Note that this column is completed only when measurement method #4 (standard volume) is used.	1=small 2=medium 3=large 4=standard Other codes are available in case new measurement methods are added (please refer to section 7.2)
conv_stdvol_descr	Text description of the standard volume (ex. small, medium, large)	This column and the one before it in the csv template (conv_stdvol) are dedicated only to measurement method #4 (standard volume)
conv_size	Numeric code for the size used	1=small 2=medium 3=large 4=standard

Table 3 (continued): Variables in the ConvFactors.csv file

conv_size_descr	Text description of the size (ex. small)	This column and the one before it in the csv template (conv_size) are dedicated only to measurement method #5 (photo size)
conv_factor	Weight in grams of food as per the measurement method indicated	
conv_unit	Numeric code of the measurement unit	1=grams 2=grams per milliliter of food (g/ml) 3=grams per length of food (g/cm) 4=grams per indicated standard volume 5=grams per indicated size of food 6=grams per indicated units of foods 7=grams of food per grams of playgdough
conv_unit_descr	Text description of the measurement method unit	
conv_nobs	Number of observations if conversion factors collected on th field or computed from previous observations	
conv_source	Numeric code for the source of the conversion factor	Can you give an example of this Mourad?
conv_source_descr	Text description of the source of the conversion factor	

3.6. The Food Groups Database

An example of the food groups database can be found in the "CSDietary\ImportExamples" folder (Groups.csv). This database allows you to classify food items into groups so as to facilitate the analysis of results later on when the data is exported from CSDietary. For example, the nutrient intake related to root crops can be separated from the nutrient intake resulting from consumption of grain products etc.

The structure of this file is very simple and self explanatory. 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.

3.7. The Retention factors database

The retention factors database follows the template of the RetentionFactor.csv file in the "CSDietary\ImportExamples".
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. You can download the complete database in the csv format for CSDietary from our servers at:
ftp://ftp.cgiar.org/ifpri/MouradM/RetentionFactors.csv

However, you can make any changes in this database if you have access to information more specific to foods found in the country you are working in. There are no limitations of the changes that you can make to this database.

3.8. Preparing the csv files for importation

After completing csv files in Excel they must be imported into CSDietary in a systematic way before they can be utilized.

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

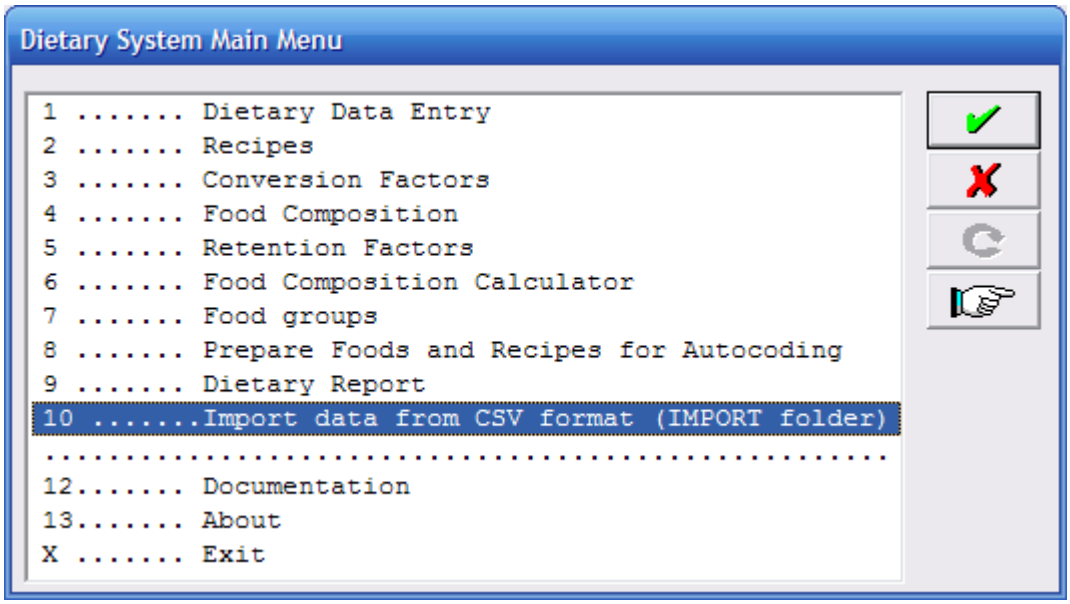
No missing data
For a successful import, please make sure that there are no blank values in the csv files, especially in the sorting columns listed above. If CSDietary encounters a blank value, then it will assume that this is the end of the file and ignore any values that are listed below the blank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

3.9. How to import the csv files

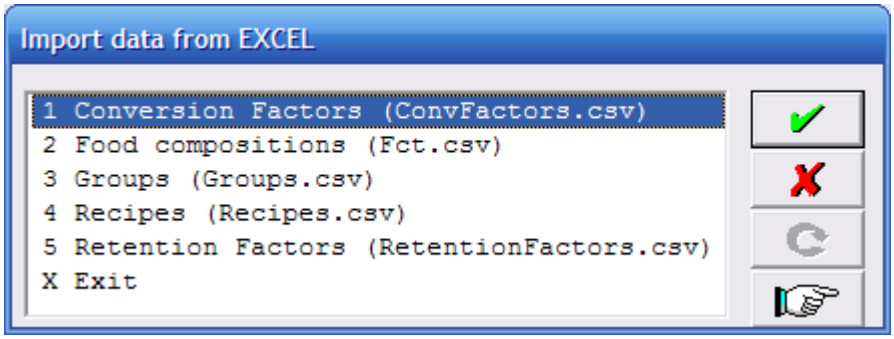
In this section, we will explain how to import csv files into CSDietary using the conversion factors file as an example and explain how to identify if an error has occured.

Step 1 – Make sure that the csv file is correctly completed and sorted (see section 3.8);

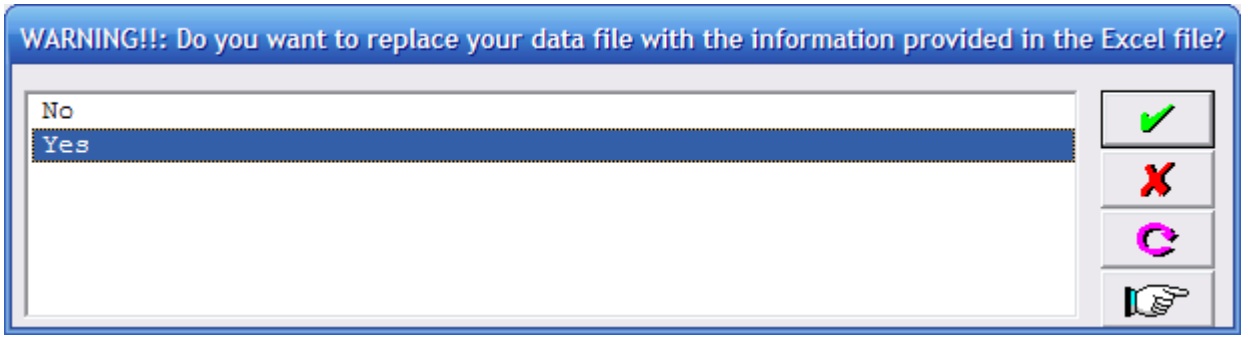
Step 2 – Place the csv file in "CSDietary\Import";



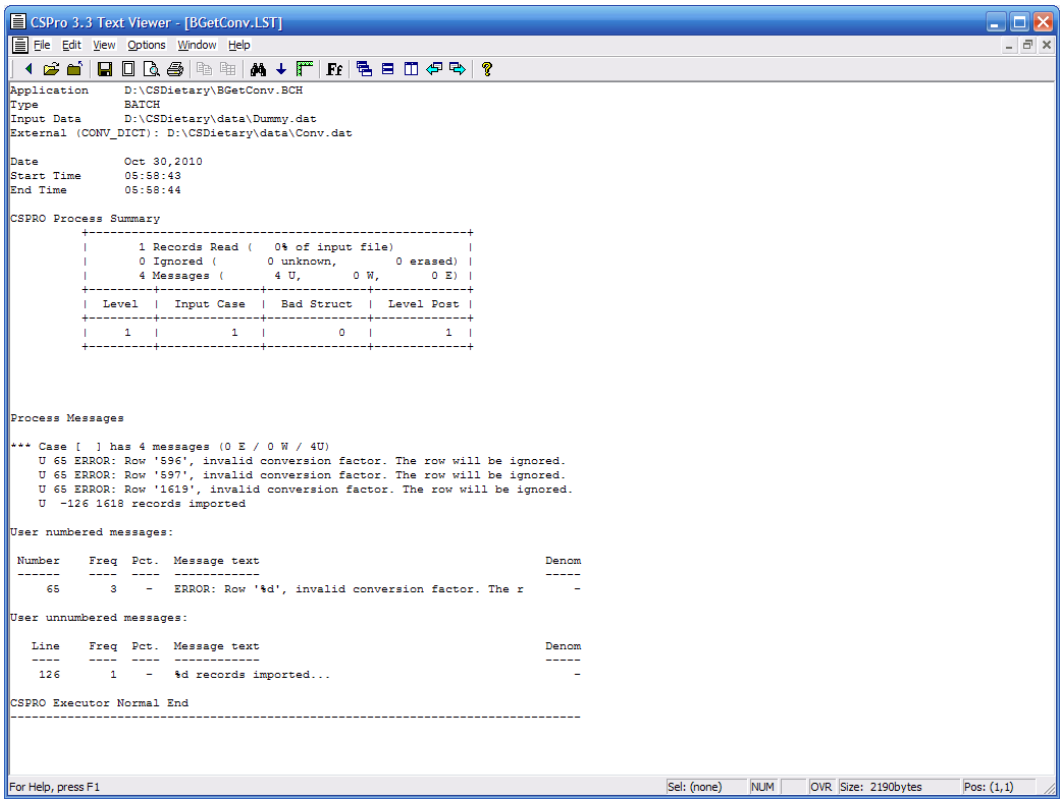
Step 3 – Choose "Import data from CSV format (IMPORT folder);



Step 4 – Choose the csv file you wish to import. In our example, it is ConvFactors.csv;



Step 5 – Choose Yes;



Step 6 – A window similar to this one will pop up informing you of the results of the import.

```
Process Messages

*** Case [   ] has 4 messages (0 E / 0 W / 4U)
    U 65 ERROR: Row '596', invalid conversion factor. The row will be ignored.
    U 65 ERROR: Row '597', invalid conversion factor. The row will be ignored.
    U 65 ERROR: Row '1619', invalid conversion factor. The row will be ignored.
    U  -126 1618 records imported
```

The key information to look for in the importation report is under “Process Messages”. These messages will give you an indication if any errors occurred during the import and how many records were imported into CSDietary.

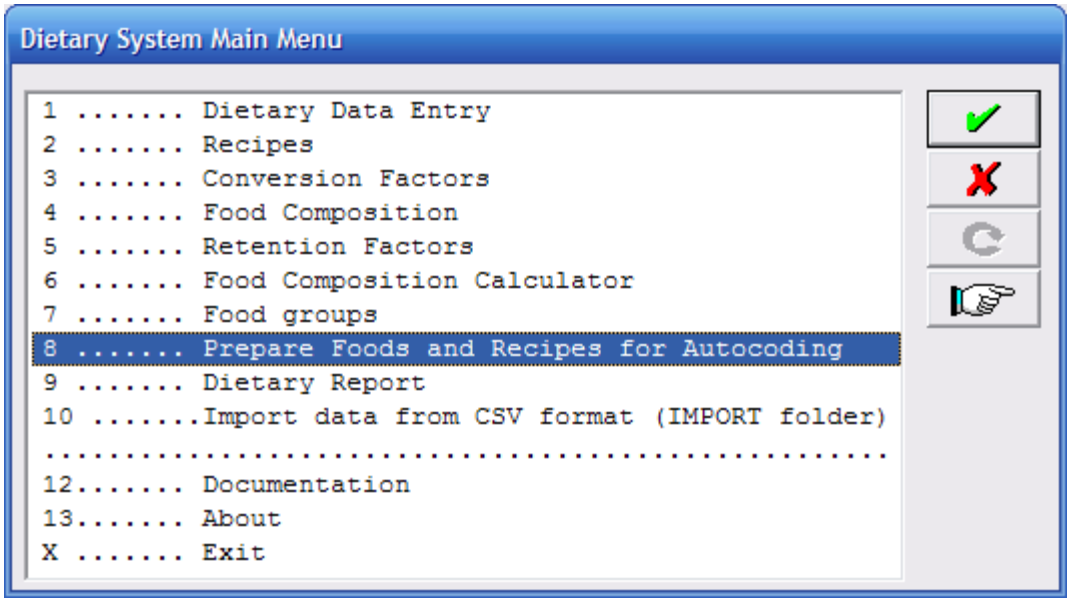
In the example above, we have a total of 1618 conversion factors imported with 3 error messages informing us that there are “invalid conversion factors” in rows 596, 597, and 1618. This is the typical error message that you get when you have blank values in the conv_factor column of the csv

file. If a structural error has occurred in the template, such column heading being incorrectly named or moved, you may get a list indicating 0 entries were imported. Remember that if you if go back to check that information in the csv file with Excel, always add +1 to the number of row displayed here to account for the fact that row 1 in Excel is taken by column headings. This means that in this example, you will be completing the information on conversion factors in rows 597, 598, and 1619.

It is impossible for us to list all the combinations of potential error messages that could be displayed by CSDietary for the different types of csv files. However, these messages are generally explicit enough to give you an idea of what is wrong with the csv file and where to look for the error.

The most frequent explanations of failed imports are:

- The csv file was not sorted correctly
- The csv files contained blank rows or was missing key information
- The structure of the file was changed, ex. changes in column headings or in the order of the columns
- The csv file was not completed adequately. For example for a given food in the ConvFactors.csv file with measurement method #4 Standard Volume, columns "conv_size" and "conv_size_descr" were erroneously completed instead of conv_stdvol and conv_stdvol_desr



Step 7 – After importing all csv files, run the autocoding option (option 8). A message indicating that the operation was successful will pop up.

3.10. Directory structure

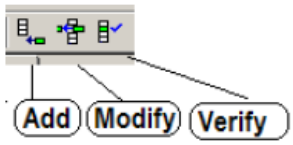
Once CSV templates have been successfully imported into CSDietary they are stored as CSPro files in the DATA folder. The dietary database should contain the following files once all CSV templates have been imported:

- Conv.dat (conversion factors)
- Fct.dat (food composition table)
- Group.dat (food groups)
- Recipe.dat (recipes)
- Ret.dat (retention factors)

4. Entering data

4.1. Basic data entry in CSDietary

All screens in CSDietary have a top bar, which in addition to drop down menu areas also includes a series of icons. For data entry, the three most import icons include the following:



To select the appropriate mode you will need to click the corresponding icon. Click "Add" to begin data input.

4.2. Navigating CSDietary worksheets

CSDietary is best navigated using the keyboard rather than the mouse. In fact, using the mouse can introduce serious errors into your data entry sheet that may be difficult to correct for later.

The most common keyboard shortcuts for navigating worksheets include:

Next Field: Enter
Previous Field: Shift+Tab
Full Screen: Ctrl+J
Partial Save: Ctrl+R or Stop button and after that select partial save button
Navigation: F6
Mouse Navigation: Left Mouse button in a specific field
Insert Lines: F3
Insert Lines After: Ctrl+F3
Delete Lines: F4
Edit Notes: Ctrl+N

4.3. Moving back through the data

If a mistake is made during data entry then it is possible to go back and correct the mistake provided the mistake is found before the end of the questionnaire. It is possible to go back to questions on previous screens as well as to questions on the current screen. There are three ways of going back to earlier questions:

a) Clicking on the field with the left mouse button
b) Pressing Shift+Tab keys simultaneously to move back one field at a time
c) Pressing the function key F6 will display a navigation menu allowing the movement to different places

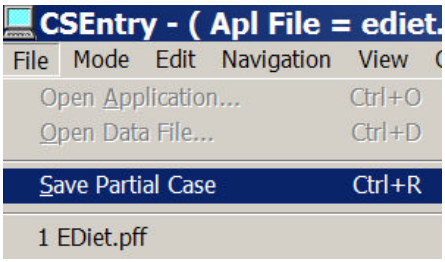
4.4. Moving forward through the data

Having moved back through the data to an earlier field there are two ways of moving forward again

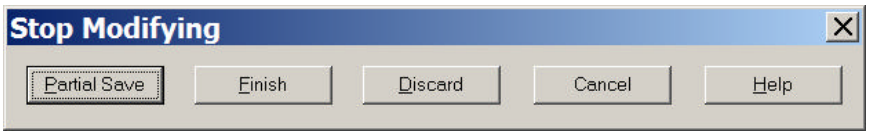
a) Pressing enter or Tab keys one field at a time until the required field is reached
b) Pressing the function key F6 as described above.

4.5. Saving data

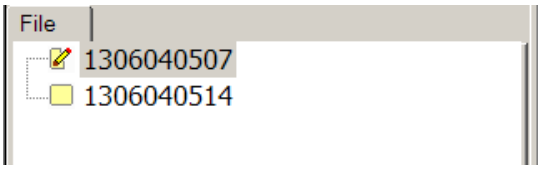
As in all CSDietary tables, cases are saved automatically by the system when you have come to the end of data entry for a given household. Press enter in a blank field, CSDietary will ask if you want to finish the roster, click yes and the case will be saved. Additionally, it's possible to save the cases partially by pressing the Ctrl+R, or the Stop button and then selecting the first button, "Partial Save".



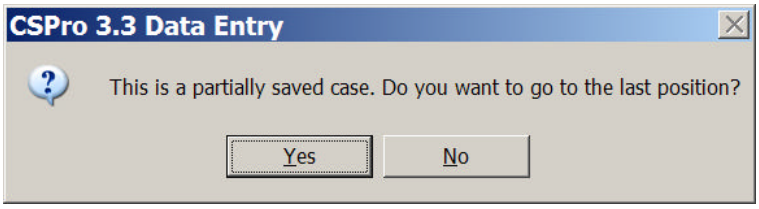
OR



Note: If you leave a partial case in the data file, an icon will be shown before the identification. In the example below, the first case is a partial save case



To resume keying the case 13606040507, double-click on that case in the tree, i.e., the one shown highlighted above. CSDietary will then ask you

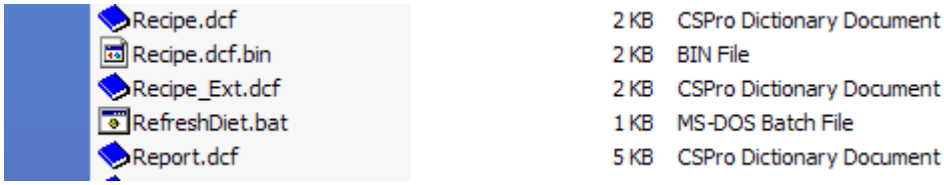


You should answer yes. The system will bring you to your last keyed position.

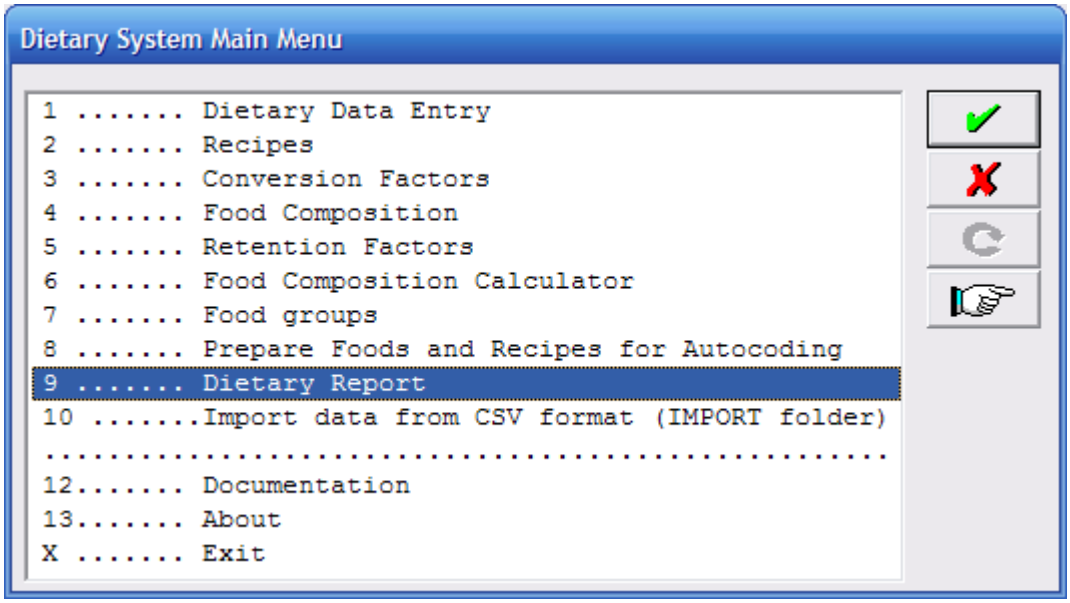
5. Reporting dietary intake results

5.1. The long report

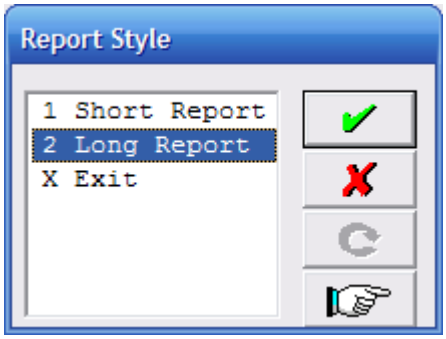
The long report function in CSDietary allows you to export the processed data to Excel. The long report displays the data at the food level, meaning that it shows for each individual food items consumed, including recipes broken down into ingredients, and nutrient intakes from these foods.



Step 1 – With CSDietary shut down, run RefreshDiet.bat. This file can be found at the root "\CSDietary" folder.



Step 2 – Launch CSDietary and click on Dietary Report in the software menu.



Step 3 – Select Long Report and click yes for the next prompt

If you have Excel installed on your machine, the processed data with nutrient intakes will open up automatically.

5.2. The short report

To export data in the short format, follow the same steps as the long report and select short report when prompted. Again, the data file will automatically be opened up in Excel.

5.3. Updating results with modified databases

To be completed

6. Customizing CSDietary

6.1. Changing data entry screens
6.2. Changing/adding measurement methods
6.3. Changing error messages
6.4. Changing screen prompts
6.5. Turning certain parameters on or off

7. Reporting errors and bugs

8. References

9. FAQ

What is CSDietary?

CSDietary is a computer program developed by HarvestPlus, a Challenge Program of the International Food Policy Research Institute (IFPRI), International Center for Tropical Agriculture (CIAT), and SERPRO S.A, a Chilean software engineering company.

Its purpose is to facilitate data entry of quantitative 24-hr recall dietary assessment forms, enable cleaning and processing of the information, and return fast, reliable nutrient intake information. CSDietary is fully customizable to local requirements, enabling incorporation of local foods, recipes, nutrient retention factors and conversion tables. All external background documents that CSDietary uses for calculations and nutrient outputs are reported in the widely used Microsoft Excel format.

Is CSDietary free to use?

CSDietary is and always will be free to use. It was developed for the purposes of making high-quality dietary assessment software available to individuals and institutions, particularly those intending to use the HarvestPlus interactive dietary recall method developed by Rosalind S. Gibson and Elaine L. Ferguson. An in-depth training manual for those with particular interest in iron and zinc deficiencies is available for free download on the HarvestPlus website (Technical Manual #8).

Can I share copies of CSDietary with other researchers?

Yes, CSDietary can be shared. New copies of CSDietary can currently be downloaded from: ftp://ftp.cgiar.org/ifpri/MouradM/DietaryInstallJan142010.zip

Is this a final version of CSDietary or will new versions be available in the future?

The intention is that CSDietary will continue to be developed and updated. We will post to our website when new versions are available for download.

What are the benefits of using CSDietary versus other nutrition data collection software?

Some of the benefits of CSDietary includes:

- Flexibility of data analysis, allowing use of most food composition tables and measurement methods
- Frequent checks to ensure data is being input correctly
- Immediate print-out of nutrient intakes on completion of data entry, with percent of nutrient intakes from pre-coded food groups
- For advanced users, customizability of data entry forms available with basic knowledge of the CSPro software system

Can I use CSDietary "out of the box" or does it need to be set-up?

CSDietary requires some set-up time before it will function correctly. This set-up work is mostly in the domain of preparing the datasets that underpin the software, such as food composition tables (FCT), standard recipes, retention factors, food groups and measurement conversion factors. Templates for these datasets already come pre-installed but they need to be updated with information appropriate to the local region and applicable to your particularly dietary assessment. These datasets are in the CSV (comma-separated values) format that is easily opened and modified in Excel (CSV files).

I have my own food composition or nutrient retention data. Can I use it with the CSDietary software?

You can use your own databases with CSDietary. Prepare your files according to the templates provided in the "Import examples" folder and you will be able to import them directly into CSDietary.

What if I encounter a problem (such as a software glitch) while using CSDietary?

We would like to hear about it! Please report the bug to Mourad Moursi (m.moursi@cgiar.org) who is cataloguing problems with CSDietary and making updates where necessary.

Do I need to use a special 24-hour data collection methodology to use CSDietary?

Although, CSDietary works best with the HarvestPlus multi-pass interactive 24-hour recall method of data collection, it may be used with nearly any other 24-hour recall method provided the CSV files and the software are updated accordingly. Data can be different quantities, weights, direct weights, diameter's etc. Using standard recipes you can also input numerical quantities of a food, such as the number of an item, and even portion sizes of an item. CSDietary has been used successfully with a number of different household measures.

How can data be backed up to between systems?

Data back-up systems are still in an initial stage of development with the CSDietary software. Back-up must be carried out manually following every day of input using the **diet.dat** file. After a day of data input, this file will contain the complete set of recorded dietary information. In the event of a computer failure, a saved copy of this file can be inserted into a freshly installed CSDietary software with the required CSV files and no information will be lost. However, it is important to remember that this file name cannot be changed. Following a day of data input it is recommended that this file be saved to a datastick in a new dated folder.

What do I do if a core CSDietary file has been lost or corrupted?

If this occurs it may be useful to re-install the CSDietary software. During a fresh install of CSDietary it should be remembered that CSDietary "Import" files, the CSV files that you have developed for use with the software will not be lost or altered during the installation. Thus, there is no need back these files up prior to a new installation.

I've added my CSV files to the Import folder and begun adding data into CSDietary but the foods are not appearing. What is wrong?

It is likely that you have to yet imported the files into CSDietary. This is done though the Dietary System Main Menu "Import data from CSV format (IMPORT folder)". Each CSV template must be individually imported in order for CSDietary to function correctly. In addition, you must ensure that the automated report that is produced following this command indicates that the correct number of records have been imported.

When I attempt to import data from the CSV format (IMPORT folder) the report says "0 records imported". What's wrong?

In order for a CSV file to import correctly you must ensure that a number of details regarding the document are addressed. These include, a) ensuring that the name of the file is identical to the original template (including capitalizations), b) ensuring that the CSV file column and row headings or structure are identical to the original template and have not been changed, c) ensuring that the rows are sorted correctly. Please see the User Manual for more instructions.

What is the difference between the dietary intake Short-Report and the Long-Report?

The dietary short-report contains the averaged nutrient intake of total foods consumed for each subject while the long-report contains the nutrient content from each individual food consumed.

The long and short-reports don't appear to have included all the information that was entered. What did I do wrong?

Prior to generating a report, please ensure that the dietary data entry screen has been completed through to the end. Next, with CSDietary shut down, run the RefreshDiet.bat file. Running this program performs a number of important functions including backup of the original data base and generation of a refreshed database. You should now be able to produce reports with a complete set of information captured.

CSDietary appears to crash after I generate a Report

Following preparation of a report, CSDietary enters into a locked state and will remain in this state until the external file (the excel file) has been saved and closed. After a few moments, CSDietary should return to the main menu screen.