Dietplan7 User Guide
# Table of Contents

1. About Dietplan7 .................................................................................................................. 6

2. Installing Dietplan7 ........................................................................................................... 10
   2.1 Hardware requirements ................................................................................................. 10
   2.2 Installing Dietplan ....................................................................................................... 10
   2.3 Activating Dietplan ..................................................................................................... 11
   2.4 Running and updating Dietplan .................................................................................... 12
   2.5 Access to Dietplan by multiple users .......................................................................... 13
   2.6 Keeping your data safe ................................................................................................. 13
   2.7 Removing or transferring Dietplan ............................................................................. 13

3. Getting Started .................................................................................................................. 15
   3.1 Main window ................................................................................................................. 15
   3.2 Using the toolbar ......................................................................................................... 16
   3.3 Selecting the type of analysis ....................................................................................... 16
   3.4 Setting view-only mode ............................................................................................... 17
   3.5 Making multiple selections ......................................................................................... 18
   3.6 Entering dates into Dietplan ....................................................................................... 18

4. Foods & Nutrients ............................................................................................................. 20
   4.1 Composition of foods .................................................................................................. 20
   4.2 Select and sort nutrients .............................................................................................. 22
   4.3 Compare two foods ..................................................................................................... 24
   4.4 Search foods for nutrient ............................................................................................ 26
   4.5 Nutrient exchange values ............................................................................................ 28

5. Recipes & Dishes ................................................................................................................ 31
   5.1 Working with recipes .................................................................................................. 31
   5.2 Entering recipe details ................................................................................................. 34
   5.3 Cooking changes ........................................................................................................ 35
   5.4 Using the recipe composition page .............................................................................. 37
   5.5 Recipe allergens .......................................................................................................... 39
   5.6 Front of pack nutrition label ...................................................................................... 39
   5.7 Food label .................................................................................................................... 40
   5.8 Nutrient profiling model (NPM) .................................................................................. 41
   5.9 Reporting multiple recipes .......................................................................................... 43

6. Meals & Menus .................................................................................................................. 46
Dietplan7 User Guide

6.1 Working with menus ......................................................... 46
6.2 Entering menu details .......................................................... 48
6.3 Using the menu composition page ....................................... 49
6.4 Using the menu construction page ....................................... 51
6.5 Review menu contents ....................................................... 53
6.6 Select choices from menu ................................................... 54
6.7 Specify number of servings of menu choices .......................... 55
6.8 Search menu for nutrient .................................................... 57

7. Personal Diet Assessments ..................................................... 59
7.1 Working with registrations .................................................. 59
7.2 Entering personal details .................................................... 61
7.3 Working with assessments .................................................. 62
7.4 Entering assessment details ................................................ 63
7.5 Using the assessment composition page ............................... 65
7.6 Using the assessment construction page ............................... 68
7.7 Review assessment diary contents ..................................... 69
7.8 Search assessment diary for nutrient ................................... 70

8. Tasks ............................................................................. 72
8.1 About tasks ...................................................................... 72
8.2 Selecting the type of analysis ............................................. 72
8.3 Select and sort nutrients ..................................................... 73
8.4 Food search methods ........................................................ 75
8.5 Add food or ingredient to analysis ..................................... 78
8.6 Add or edit food directly in analysis .................................... 81
8.7 Cut and paste foods and ingredients ................................... 81
8.8 Add notes and comments .................................................. 82
8.9 Navigating analysis groups ................................................ 83
8.10 Naming analysis groups .................................................... 85
8.11 Using dietary reference values .......................................... 86
8.12 Guidelines for school meals .............................................. 88
8.13 Data export ..................................................................... 88
8.14 Data import .................................................................... 90
8.15 Category coding ............................................................... 90
8.15.1 Category coding ......................................................... 90
8.15.2 Define dietary categories ............................................. 91
8.15.3 Add categories to foods .............................................. 94
8.15.4 Add categories to an analysis ..............................................95
9. Views ..........................................................................................98
  9.1 Reports ....................................................................................98
    9.1.1 Create report ........................................................................98
    9.1.2 Define report content ..........................................................101
    9.1.3 Selecting analysis groups ....................................................106
    9.1.4 View saved report ...............................................................107
  9.2 Graphs ....................................................................................108
    9.2.1 Show graphs ........................................................................108
    9.2.2 Define graphs ......................................................................110
    9.2.3 Graph nutrient contribution by weight .................................111
    9.2.4 Graph energy contributions ................................................112
    9.2.5 Graph sources of a nutrient ................................................114
    9.2.6 Graph actual v recommended intake ..................................115
  9.3 Grids .......................................................................................117
    9.3.1 Show grid ...........................................................................117
  9.4 Queries ...................................................................................118
    9.4.1 Create lists ..........................................................................118
    9.4.2 MW7 publication numbers ..................................................120
10. Data ..........................................................................................122
  10.1 Add or Edit USF food ...............................................................122
  10.2 Export database records .........................................................124
  10.3 Import database records ........................................................124
  10.4 Search analyses for a food item ..............................................125
11. Other options ............................................................................127
  11.1 Setting your preferences ........................................................127
    11.1.1 Appearance preferences ....................................................127
    11.1.2 Behaviour preferences ......................................................128
    11.1.3 Information preferences ....................................................129
    11.1.4 Auto-backup on exit ...........................................................129
    11.1.5 Background image .............................................................131
    11.1.6 Current privileges .............................................................131
    11.1.7 Default settings .................................................................132
    11.1.8 Energy conversion factors ................................................132
    11.1.9 Multiple view .....................................................................133
    11.1.10 Output folders .................................................................134
12. System Administration

12.1 Import food tables ................................................................. 139
12.2 Remove food tables ............................................................... 140
12.3 Include all archived UK foods .............................................. 141
12.4 Add or edit foods in database .............................................. 142
12.5 Food portion sizes ............................................................... 142
12.6 Food input units ................................................................. 144
12.7 Define new nutrients ............................................................. 145
12.8 Add nutrients & allergens to a food ...................................... 146
12.9 Standard nutrient lists ......................................................... 146
12.10 Define standard reports ...................................................... 147
12.11 Define standard graphs ....................................................... 147
12.12 Managing your data .............................................................. 147
12.12.1 Import Dietplan records ................................................... 147
12.12.2 Export Dietplan records .................................................. 149
12.12.3 Archive Dietplan records ............................................... 150
12.12.4 Delete Dietplan records ............................................... 151
12.12.5 Replace ingredient in recipes ......................................... 152
12.12.6 Verify recipes .............................................................. 153
12.12.7 Change registration number .......................................... 153
12.12.8 Transfer assessments .................................................... 154
12.12.9 Remove unused registrations ......................................... 155
12.12.10 Delete all category definitions ...................................... 156
12.12.11 Update foods in analyses ........................................... 157
12.13 Backup and restore .......................................................... 159
12.13.1 Backup Dietplan database ........................................... 159
12.13.2 Restore Dietplan database ............................................ 160
12.13.3 Restore selected items ................................................... 162
12.14 Access management .......................................................... 163
12.14.1 Enable user accounts ..................................................... 163
12.14.2 Register users ................................................................. 164
12.14.3 Register user groups ........................................................ 168
13. Glossary ............................................................................. 172
  13.1 Analysis groups .............................................................. 172
  13.2 Averaged intake ............................................................. 172
  13.3 Dietary Reference Values ............................................... 172
  13.4 Estimated Average Requirement ........................................ 172
  13.5 Food group .................................................................. 172
  13.6 Intake diary .................................................................. 172
  13.7 Lower Reference Nutrient Intake ...................................... 172
  13.8 Nutrient exchange value ............................................... 172
  13.9 Portable document format (PDF) ..................................... 172
  13.10 Portable network graphics .............................................. 173
  13.11 qualifying indicator ..................................................... 173
  13.12 RDA ........................................................................... 173
  13.13 Reference Nutrient Intake .............................................. 173
  13.14 Scientific (E-format) notation ........................................ 173
  13.15 UK Nutrient Databank .................................................. 173
1. About Dietplan7

Dietplan7 is a user-friendly computer program for the nutrition analysis of recipe, meals, menus and personal weighed-intake food diaries. It runs on a PC under 32 and 64 bit versions of Microsoft Windows, from Windows XP to Windows 10. Dietplan will also run on any Apple Mac computer under OS X from version 10.6, Snow Leopard to 10.11, El Capitan. There are two versions of the software: Dietplan7 Professional and Dietplan7 Personal. They are identical in the nutritional analysis tasks they can perform, but each is intended for a different type of user.

Dietplan7 Professional is the version for use in an organisation or department where more than one person may be using the software and each user can be given specific privileges by an appointed administrator. Depending on the type and number of licences purchased, it can be run as a self-contained program on one or more desktop or laptop computers, or it can be installed onto a network server where the data can be accessed and shared simultaneously by users on different workstations.

The Dietplan7 Personal version is for use by one person. It can be one of two models: Installed, where the software is loaded onto one specific computer and runs on that machine alone, or Portable where the software is supplied pre-installed on a flash drive that can be simply plugged into the USB port of any host computer, either Windows or Mac, and run without any explicit installation. All work is saved on the drive, so you can simply unplug it and carry it with you, then continue exactly where you left off when you use it again either on the same, or any other computer.

Dietplan uses a relational database to store both its nutrition data and the details of the items that the user inputs for analysis. Nutrition data from multiple sources can be stored and all are accessible to any analysis without restriction. Both the professional and personal versions of Dietplan are currently supplied with all of the data from the UK Nutrient Databank, the most recent components of which are McCance & Widdowson's The Composition of Foods, 7th Edition, 2014 and the Composition of Foods Integrated Data Set, 2nd revision 2015. The software also has the facility for the user to enter the details of as many other additional foods and ingredients as required.

Dietplan7 uses a three-letter data-source code as well as a food-reference code to identify each food or ingredient uniquely. Foods from the 7th summary edition and the revised Integrated Data Set have the codes MW7 and ID2 respectively. The data-source code is also used to identify other sets of food tables that come from outside the UK databank, such as USD for the United States Department of Agriculture tables and USF or ADF for foods and ingredients and RCP for recipes that are added locally.

Nutrient data is available from a number of other sources. At the current release they are contained in two database files, which are available both on the Dietplan7 installation CD and on line. One file contains product data from UK suppliers, the other contains other national food tables. Respectively, these tables and their data-source codes are:

UK supplier product tables

- ABT Abbott Nutrition *
- BKS Brakes *
These food and product tables can be selectively imported into the live database from within Dietplan itself, using the **Import food tables** option from the main **Admin** menu.


For recipes, Dietplan follows the *Food Standards Agency (2013)* Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets. It also produces labelling information calculated from nutritional values that comply with EU Regulation 1169/2011 on the provision of food information to consumers. The Department of Health / *Food Standards Agency Nutrient Profiling Model* (2004 - 2011) is also supported. Weight loss or gain through cooking as well as estimated vitamin losses (McCance & Widdowson, 7th Ed.) can also be entered.

Nutrient values are calculated as soon as a food or ingredient is added, making it easy to observe the effects of adding or subtracting any item. Foods, recipes and menus can also be searched, for high or low values of a specified nutrient.

You can enter and save your own recipes including portion sizes and numbers of portions. Once saved, a recipe can be added into any diet assessment or menu analysis or into another recipe, either as a food item in its own right, or using the individual recipe ingredients.

The subjects of personal dietary assessments (weighed-intake food diaries) can have their details recorded, and an unlimited number of assessments can be saved for each individual. These details are used in the computation of the person's DRV$s. Diaries can be input, and analysed, either as individual days, meals and, if required, courses or they can simply be input into a cumulative total that is subsequently averaged. If individual meals are input, the time of consumption can also be recorded.

In a similar way, you can design and analyse menus by recording courses and meals over any period of days. You can also record a choice of dishes within each
A nutrition analysis can be performed either for selected choices or for an average of all choices in the ratio, if required, of the number of servings of each choice dish.

You can specify and save an unlimited number of food definitions of your own. It is also possible to define new constituent nutrients and add values for these to any food in the database.

Individual foods, or lists of foods, can be retrieved from the database either by explicit data-source and food reference code, or by specified food group(s) and/or diet category code(s). Food names can also be searched to match, or to exclude, specified whole or partial words.

An unlimited number of different portion sizes can be specified for any food either by selecting from a range of more than 50 predefined portion types or by defining new types. All existing portion sizes can be edited or deleted.

You can choose which constituent nutrients are to be included in your analyses, and the order they are presented.

Dietplan Professional (only) can be operated in either a completely open manner with no restrictions on the user, or an appointed system administrator can set up user accounts to control access and specify the rights and privileges of individual, registered users. The selections and settings made by a registered user are saved between sessions and are unaffected by the selections of other users.

Results can be presented in the form of reports that can be viewed on screen and printed. The component parts of each report are fully user-selectable and can be a mixture of tabulated and free-form text and high resolution colour graphics (bar-graphs, pie charts or histograms).

Reports are produced as portable document format (PDF) files that can be viewed and printed by Dietplan7 using either the built-in PDF viewer or the standard Adobe Reader. PDF format is used because of its security; once created, it is safe from alteration without using specialised software. It is also a widely accepted form of document interchange that is not tied to any proprietary word-processing document format.

It also possible to save reports and graphics in Open/Libre Office (.odt) format. Libre Office and Open Office are free software packages that are very similar to pre-2007 editions of Microsoft Office. So, if reports are saved in this format, you can use Open/Libre Office to load and customise them in the same way as any other word-processor document. They can also save documents in Microsoft Office (.doc) format and more recent versions of Microsoft Office (2007 SP2 onward) can read .odt format documents directly.

A table of foods and nutrients can be displayed for any analysis in a grid, like a spreadsheet. This can also be printed out or exported, either singly or for a selection of different analyses, in standard comma separated value (.csv format) files to spreadsheet programs such as Excel, Quattro or Supercalc or to statistics packages like SPSS or Minitab.

In addition to being included in reports, high-resolution colour graphics can be selected and viewed onscreen. You can choose to view histograms, pie charts or bar-graphs for a range of different data, both individual and aggregated. Graphs can be printed in monochrome or full colour, depending on your printer. They can
also be saved in standard, portable network graphics (PNG) format files that can be imported into desktop publishing and other image processing software.

There are data export and import facilities where selected recipes, menus and assessments can be exported and saved to an intermediate database-format file and selectively imported by any other Dietplan installation of choice.

Dietplan also has an optional external data import facility. Catering software packages contain information for the bulk preparation of recipes and menus and are concerned primarily with stock control, ingredient usage and pricing rather than nutritional content. But they do hold the same basic information about the recipes and menus that is required by Dietplan for nutritional analysis. To avoid the expensive and error-prone re-entry of data, Dietplan has an interface that can accept this information electronically from certain catering packages, validate it and store it in its own database for subsequent analysis. Catering packages Manna (from Oracle Retail) and Menumark (from Datasym Ltd) are currently supported.

Dietplan is fully documented in this User Guide, which is accessible in PDF format. On-line help is also available at any time by selecting Contents & index from the main Help menu. The Dietplan software continues to evolve, particularly in response to suggestions and requests from users. If you have any specific requirements, please let us know. There is a Submit problem or query option, also on the main Help menu, that you can fill out on screen and send to us directly as an email.
2. Installing Dietplan7

2.1 Hardware requirements
Any PC running 32 or 64 bit Windows XP or later, or any Apple Mac computer with an Intel processor running OS X version 10.6 or later will be more than capable of running Dietplan7.

If Dietplan is installed onto the machine's local hard disk - as opposed to the professional version being installed on a network drive or the portable, personal version being run from its USB flash drive - about 300 -400 megabytes of local disk space will be required, depending on the number of optional, additional food tables installed. The database will grow as user-saved work is added, but only by the order of a few tens of megabytes.

A CD reader is not an essential requirement as the purchased software can also be downloaded.

For ease of use, the computer's screen resolution should be set to a minimum of 1024 x 768.

2.2 Installing Dietplan
This applies to Dietplan7 Professional and to Dietplan7 Personal (installed). Dietplan7 Personal (portable) does not require installation, it is ready to run - simply plug it into a USB port on your computer. It can be either a PC running Windows XP or later, or an Apple Mac with OS X 10.6 Snow Leopard or later. To start, navigate to the removable drive that appears. With Windows use Windows Explorer and double-click the icon dp7-win.exe and with OS X use Finder and double-click dp7-osx.sym.

The Dietplan software is supplied on CD and the installation will begin automatically a few moments after the CD is inserted. The software can also be downloaded from www.fore-soft.com and installed either as a 30 day trial or, at any time after that, as a permanently licenced installation using an activation code that is supplied when the software is purchased.

Windows
If using the CD, installation should begin automatically. If it does not, double-click on dp7install-win.exe. If the software has been downloaded, double-click on the downloaded file. When the installation begins, you are given the choice of where Dietplan7 is to be installed on your hard disk. The default location is C:\Program Files\Forestfield\Dietplan7. If you wish to install Dietplan on a shared network drive, you should specify the destination drive and path at this point. The whole of the Dietplan system is installed into the selected destination folder.

When installing Dietplan onto a shared network drive, it is best done from one of the intended client workstations. That way, the desktop shortcut that is used to start Dietplan running will be created there. This is the only item needed on each individual workstation and it can be copied to as many other workstations as required. Dietplan can be made available, via the desktop shortcut, from as many locations as you wish but the number of users able to run the software simultaneously will be limited by the number of user licences purchased.

Important Note
When installing under Windows as an Administrator, ensure that the end-users of Dietplan have the correct access rights to the Dietplan7 directory/folder and its subdirectories. The installer will attempt to set the appropriate rights but cannot guarantee to do so under all local circumstances.

Authorised users (authusers) need the following access rights:

- **Dietplan7**; Permissions: authusers-readexec
- **Dietplan7\licence**; Permissions: authusers-modify
- **Dietplan7\database**; Permissions: authusers-modify
- **Dietplan7\locks**; Permissions: authusers-modify
- **Dietplan7\logs**; Permissions: authusers-modify
- **Dietplan7\imports**; Permissions: authusers-modify
- **Dietplan7\resource**; Permissions: authusers-readexec
- **Dietplan7\program**; Permissions: authusers-readexec
- **Dietplan7\scripts**; Permissions: authusers-readexec
- **Dietplan7\userguide**; Permissions: authusers-readexec

**Mac OS X**

If installing from CD, after insertion, browse to it in a Finder window and double-click on the file `dp6install-osx`. This will verify the contents and open a `dp7install` window containing the installer package and a `Readme` file. Double click on `Dp7-install.pkg` to proceed. If the software has been downloaded, double-click on the downloaded file.

The software is installed using the standard Mac Installer to `/Users/Shared/Dietplan7`. The program itself is `/Users/Shared/Dietplan7/Program/Dietplan7.app`. Use Finder to locate it for the first time, then drag it into the Dock for rapid access in future.

The operation of Dietplan7 is almost identical to the Windows version. There are one or two differences, to comply with Apple's Human Interface Guidelines, mainly the `About Dietplan7` and the `Preferences` menu items are moved, from the Help and Edit menus respectively, into the unique-to-Apple,Dietplan7 item on the main menu, at the top of the screen.

Please note also that throughout this document, mention of the Ctrl key is specific to Microsoft Windows; for Mac OS X use the cmd key.

A preference, which is not available to OS X, is to select Adobe Reader as the viewer for PDF reports within Dietplan7 screens. Only Dietplan's internal viewer is available for this. However it is also possible to use OS X's own Preview PDF viewer to view reports either immediately before printing, or if they are saved to file on disk.

### 2.3 Activating Dietplan

Each purchased copy of Dietplan7 is licenced to run the software and to use the UK Nutrient Databank and other food tables. Multiple installation and multi-user networked versions are similarly licenced for the number of installed copies or the number of concurrent network users.

A freshly installed copy of Dietplan7 Professional or Dietplan7 Personal must be activated with a valid licence before it will run. This is done on-line using the Activation Code that is supplied at the time of purchase. Dietplan7 Personal
(portable) is supplied on a USB flash drive that is already activated with a valid licence.

If you have purchased Dietplan and are installing it for the first time, you can enter the 16 character activation code during the dialog that appears the first time you run the software. If you have previously chosen to run the installation as a 30 day trial, you can enter the activation code by selecting *Activate Dietplan licence* on the *Help* menu.

### 2.4 Running and updating Dietplan

On Windows, the installation process will create all the necessary program groups, icons and, optionally, desktop shortcuts and you can use any method you would normally use for starting a Windows program, which will vary depending on the version of Windows you are using. The recommended way of running the program is to use the desktop shortcut to Dietplan7 that is created by default during the installation of the software.

Under OS X, Dietplan is installed in `/Users/Shared/Dietplan7` by default. The application to run is `../Program/Dietplan7.app` For quick access, drag and drop its icon into the desktop dock.

To run Dietplan7 Portable from the USB flash drive itself, when inserted it will appear as an additional, removable drive. To start running, navigate to the top-level of this drive then, under Windows, double-click `dp7-win.exe` using Windows Explorer or "My Computer", or under OS X, double-click `dp7-osx.sym` using Finder.

If you run Dietplan7 Portable regularly from one or more computers, it might be convenient to copy the appropriate shortcut onto the desktop of each machine.

**Updating Dietplan**

Regular updates to the current release of Dietplan7 are published on the Support page of the web site [http://fore-soft.com](http://fore-soft.com) and you can check for and download them as they are published. They do not usually include new software functionality, which is normally introduced only with new releases of the program, but contain fixes to discovered and reported problems and are available to everyone. There is also a *FAQ* (Frequently Asked Questions) page where problems and work-arounds are reported.

Users with Dietplan System Administrator rights can also check for updates from within Dietplan itself and choose to have them downloaded and installed automatically. You can explicitly check for updates at any time by selecting *Check for updates* on the *Help* menu or you can set up automatic checking, every day, week or month using *Update checking in Preferences* on the *Edit* menu. If a new update is found, you can choose whether or not to download and install it automatically. Although network-installed, multi-user installations of Dietplan can check for updates in this way, updates themselves cannot be installed automatically but must be downloaded from the web and installed at a time when no other users are present.

Updates to new releases of Dietplan are automatically sent to subscribers to the annual support and software update service and are available for purchase by non-subscribers. Updates can be purchased for installations going back as far as the...
original Dietplan6 version 6.10. Please contact Forestfield Software for specific prices.

2.5 Access to Dietplan by multiple users

The following does not apply to the Personal version of Dietplan as it is licenced to a single, named individual.

The Professional version, even with a single-user licence might be used, at different times, by a number of people. Various program settings, such as the nutrients to be displayed and the items to be included in a report and any choices made in the Preferences option are all saved and are used again until they are changed. This means that different users altering settings can easily clash with each other's work.

A designated administrator can set up individual accounts for each user where their settings and preferences are saved independently and files are saved in personal folders and sub-folders in their Home directory. The recommended method is to link each account to the user's OS (e.g. Windows) login id, so that it is not necessary to log in to Dietplan explicitly.

See Access Management for further details.

2.6 Keeping your data safe

If your hard disk drive fails or data becomes corrupted, it may be necessary to re-install Dietplan. However, doing so will not restore any information that you yourself have saved or any personal settings you have made.

To ensure that you do not lose your information, which could be quite substantial, you should make a regular back-up copy of the folder ..\Dietplan7 (or the folder name you chose when Dietplan was installed) and keep it in a safe place. How often you do this is a compromise between how much data you are prepared to lose and the inconvenience of making time to do the backup. A daily, weekly or monthly backup should be done depending on how frequently information is being added to the database. If your organisation has a policy or guidelines on performing backups, you should follow these.

Dietplan also has its own backup and restore options available on the Admin menu. The backup function can be used regularly to compress and save the whole database onto removable media or a remote network drive of your choice.

If you have a more comprehensive backup strategy in place for your PC or network then, once it includes the Dietplan7 folder in its scope, your data should be adequately protected.

2.7 Removing or transferring Dietplan

If you have data saved in the Dietplan database on your current machine that you want to transfer to a new computer, you must first perform a data backup. This can be done conveniently using the built-in Backup and Restore functions of Dietplan.

Once any required backups have been made, you should de-activate the installation. This is done on line and releases the licence so it is available for your new installation. Run Dietplan for the last time and, with no other activities open in the program, select De-activate Dietplan licence on the Admin menu. If you do not already have a record of it, take a note of the 16 character activation code that is displayed. This will be needed to activate the software at its new location.
Using your original CD, install a fresh copy of Dietplan on your new computer and enter the 16 character activation code during the dialog that appears the first time you run it.

Restore any data that you backed up from your original computer that you want to use. If it was saved using Dietplan Backup, perform a Restore via the Admin menu. Dietplan7 on your new computer should now appear exactly as it did on the old one.

When you are happy that this is the case, and if the old computer is to remain in service, recover the hard disk space by clicking Start, selecting All Programs, then Dietplan7 and Uninstall Dietplan7 to remove the installed software. This will not remove any files or data added since the original installation, so also delete the folder Dietplan7 (or the folder name you chose when Dietplan was installed).
3. Getting Started

3.1 Main window

A splash-screen showing Forestfield Software contact information is displayed while Dietplan loads and the database is made ready. The main window is displayed in the position and at the size it was when last used. Nearly all windows and dialogs can be re-sized and moved, and they remember their settings next time they are used. There is a reset button in the Preferences dialog to restore them all to their original, default values.

If the software has been set up with user accounts that use explicit login id's rather than the recommended use of the system's user account names, a login dialog first appears for you to enter the login id and password assigned to you by your Dietplan system administrator. The password field only echoes asterisks as you type. The password is case sensitive, so ensure that Caps Lock on your keyboard is off.

Every time the program starts, a pop-up Tip of the day is shown which contains hints about the use of various features of the software. A different tip is shown each time that the program starts, but it is possible to step through all of them in one session. You can disable the pop-up by removing the tick from the Show tips at startup checkbox and enable it by selecting Show tip-of-the-day on the Help menu.

With lower screen resolutions, or if you prefer to work that way, you can maximise the main window and the setting will be remembered until you change it.

Individual recipes, menus and assessments appear inside the main window and you can have as many open simultaneously as you wish. Each one appears as a page in a tabbed workbook with titles along the top of the window.

The main window is split into two panes with a vertical sash, which can be dragged left and right. The right pane is initially empty but will contain the above analysis workbook once work commences. The left pane contains the same items as the conventional main menu along the top of the screen, but in the form of an expandable tree structure. Items can be selected from either the main menu (or the toolbar) or the tree menu with exactly the same effect. The only difference between the two menu formats is that as many items as you wish can be expanded in the tree and they will remain in that state until changed. It might be easier to
see what items are available and to select them using this format, rather than navigate through the conventional menu every time. If you do not wish to use or see the tree menu, drag the dividing sash fully to the left, or click the left-most icon on the toolbar.

When there are no analysis workbook items open, the right pane of the main window displays a background image. You can select Background image via Preferences to select a different image, to specify an image of your own, or to choose a plain background colour.

3.2 Using the toolbar
The toolbar comprises a set of buttons, along the top of the main window, immediately below the menu. They provide shortcut access to frequently used items that are also on the menu. If a button is active, i.e. it is not greyed-out, you can click it at any time to activate its associated function. The icon on the button is a stylised representation of the function. If you pause with the mouse cursor over the button, without actually pressing it, a tool-tip appears with a brief description of its purpose. The same text also appears in the leftmost pane of the status bar at the bottom of the window. The main window toolbar looks like:

![Main window toolbar](image)

and the button functions are, left to right:

- Show / Hide menu tree
- Set view-only mode
- Start a new analysis
- Open an existing analysis
- Save current item *
- Close current item *
- Print current item *
- Export to spreadsheet
- Select recipes, menus or diet assessments
- Composition of foods
- Select nutrients

* Current item depends on the context. It is the subject of the active notebook at the time the button is pressed.

3.3 Selecting the type of analysis
Dietplan can be used for the nutritional analysis of recipes, menus (meal plans) and personal diets. Before starting an analysis, you must choose which type you are going to use. There are several ways to do this and can choose the method you find most convenient.

From the Tasks menu, choose Select analysis type

- or -

Press Ctrl + T

The following dialog appears:
The current selection is highlighted. To change it, click one of the other types, then the OK button.

Alternatively, from the File menu, pause with the mouse cursor over Select analysis type until a sub-menu pops up

The current selection is checked. Highlight a new selection and click on it.

The easiest way of selecting or changing the current analysis type is to select it from the drop-down selection list on the main tool-bar.

The currently selected analysis type is displayed in the second status pane at the bottom of the main Dietplan window. Your selection remains the same until you change it.

3.4 Setting view-only mode

Each type of analysis uses a similar notebook style in which the foods, nutrients and totals are added, amended and displayed. If you want to ensure that an existing analysis is not altered inadvertently while you are just looking at it, you can set it into view-only (locked) mode so that no changes are allowed.

From the File menu, select View only

-or-

Press Ctrl + L
Click the lock button on the toolbar.

When you set view-only mode, a pop-up dialog asks you to confirm your choice.

When view-only mode is set, all menu items and buttons that could change the analysis are disabled and appear 'greyed-out'.

Selecting view-only for a second time resets it and changes are allowed again.

View-only remains selected just for the current session. Dietplan always starts up with database changes permitted.

3.5 Making multiple selections
A number of the selection dialogs in Dietplan allow you to make multiple selections and you can use the standard method of making multiple selections in Microsoft Windows and Mac OS X:

To select a group of consecutive items, press the left mouse button over the first item and, while holding down the button, drag the mouse over the group of items to be selected. Release the button when all the required items are highlighted. Alternatively, click on the first item, press the Shift key and click on the last item in the group. To add other items that are not consecutive, or to remove individual items from the selected group, hold down the Ctrl key (the Cmd key on the Mac) while clicking each item individually.

3.6 Entering dates into Dietplan
Dates can be entered in a variety of formats, and each of the following will be examined in turn:

Day Month Year
Year Month Day
Month Day Year
The order, in which these formats are examined, depends on the region or locale setting of your system, for example, by Windows Control Panel. In the United Kingdom the order is as above.

Days are numeric, in the range 1 to 31.

Months can be numeric, 1 to 12, short names, Jan to Dec, or full names, January to December.

Years can be two or four digits and two-digit years are converted to four digits giving a year up to 99 years earlier than the current date (Dietplan never uses future dates).

A single character should separate the individual fields and may be a space, comma, full stop, colon, hyphen or forward slash. The separator can be omitted if there is no ambiguity: - 01062003 is acceptable but not 162003 - i.e. use 2 digit dd and mm.

In the UK, dates are displayed and printed by Dietplan in the format DD FullMonthName YYYY wherever space permits

e.g. 21 August 2014
4. Foods & Nutrients

4.1 Composition of foods

From the **Foods** menu, select **Composition**

- **or**-

Click the composition button 📋 on the toolbar.

- **or**-

Press **Ctrl + M**

This opens a multi-tabbed notebook in the main window. The notebook is itself an item in the main workbook as can be seen from the tab labelled **Food** at the top of the window. The first page of the food-composition notebook is called **Selection**, as can be seen from the tab labels down the left hand side. Here the task is to identify and select the particular food or ingredient whose composition is required. Foods and ingredients can be retrieved using any of the **food search** methods, that is, by reference-code, by name word-search or by food group or category code. If more than one food matches the search criteria, the results are listed as illustrated above. An item can be selected from the list with either the mouse or **cursor up/down** keys. When the required item is displayed in the **Selection** field at the bottom of the window, click the **Select** button, or press **Enter** to confirm the selection and the next notebook page, **Composition**, will be displayed.
It is also possible to right-click any food on the list to open a pop-up menu. The first item is **Show composition**, which has the same effect as the **Select** button above. The next is **Compare foods**, which provides a shortcut to the **Compare Two Foods** function and the remaining two options permit any two foods that are listed to be selected as the foods to be compared and then to call the food comparison function.

Once a food has been selected, you can specify the quantity you want to be analysed. This defaults to 100 grams, as in *The Composition of Foods* but it can be altered to any other quantity you wish.

Many foods have one or more portion sizes defined. To choose one of these, select the **Portion size** field and open the drop-down list of portion types and select the one you require. If you wish, you can then select the **Number of units** field and
alter the number of portions from the default of 1. The amount of food for this size and number of portions is calculated automatically and displayed in the Quantity field.

You can edit or replace any value in the quantity field. You can specify the quantity in grams, ounces (Imperial Measure), millilitres, or any other units added by the system administrator by selecting the required units from the drop-down list. The default input-units can be changed using the preferences option.

You can also express the food quantity in terms of the nutrient exchange value by clicking on Use nutrient exchanges. Choosing this shows a nutrient field with a drop-down list of nutrient names, from which you select one to be calculated. A new field called Exchange value also appears in which you enter the quantity of the nutrient, in the units shown, that is required from the food. The corresponding amount of food is then calculated and displayed in the Quantity field.

The nutrients and the order they are displayed, depend on the selections made in the Select Nutrients option on the Tasks menu. The default selection displays the same nutrients and order as published in The Composition of Foods.

If there is no information in the database about a particular nutrient, the quantity is displayed as ---. If there is genuinely none of a particular nutrient present in the food, the value is shown as Nil. The value 0+ indicates there are traces of the nutrient present, while ++ indicates significant, but unknown amounts. Quantities that have been obtained using a derived or a difference method have the suffix d, while estimated quantities have the suffix e.

After viewing the composition of the food you can click Close to exit or Back to return to the Selection page to select a different food.

You can click the Report button or the notebook tab of the same name to format the list of nutrient values as a PDF document that can be viewed, printed and/or saved.

You can also click the Graph button or notebook tab to display a graph of the food’s nutrient content by weight, that is, the relative contribution to the specified quantity of the food from protein, carbohydrate, fat, alcohol, water, fibre plus any inedible part. Using the Design button on the Graph page, you have the choice of showing a bar graph, pie chart or histogram and also how much detail is included. You can show just the primary contributions as above, or you can show the contributions of starches and sugars to carbohydrate and the proportions of mono-poly- and un-saturated fats to the fat total.

4.2 Select and sort nutrients
From the Tasks menu, choose Select nutrients to display -or-

Click the select-nutrients button on the toolbar.

Create or recall a list that specifies the nutrients to be shown in every recipe, assessment and menu analysis and the order in which they are displayed. New lists are given a name of your choice and you can have as many lists as you wish.
The dialog contains two scrolling panes.

The left, *Select nutrients from*, pane contains a list of all the available nutrients, grouped logically under their sub-headings. The list includes only the nutrients that currently have any values in the database. Previously all known nutrients were included even if they had no values, for example nutrients only used in the USDA table when that table had not been imported.

The right, *Selected nutrients in order*, pane contains the list of nutrients currently selected, shown in the order in which they will be displayed.

You can *highlight one or more nutrients* from the left pane that are not already in the selected nutrients list and click *Add selection* to copy them into the current list on the right. Similarly, you can highlight one or more nutrients in the right pane and click *Remove selection* to delete them from the current list. You can start with an empty list by using *Remove all*. To change the order of the selected nutrients in the list, highlight one or more nutrients to be moved and click *Shift selection up* or *Shift selection down*. For each click, the highlighted items will move up or down one place relative to the rest of the list.

You can begin with any previously saved nutrient list by selecting it from the drop-down choice box. Dietplan has a number of pre-defined lists, including the nutrients and nutrient order in the published 5th and 6th editions of *The Composition of Foods*. These are *System definitions*, as indicated at the foot of the dialog, and cannot be altered, although you can make changes and click the *Save as* button to create a new list using a different name.

Similarly, if individual user accounts have been set up, any lists created by a system administrator, using the *standard nutrient lists* dialog on the *Admin* menu, will appear as *Standard definitions* which also cannot be changed but, like a system definition, can be copied using *Save as*. A list that you create or copy and
save with a name of your own appears as a **User definition** and it can be altered and edited as required.

All saved system, standard and user lists appear in the drop-down selection list of the *Name of saved list* field.

To delete a list, select it, use the **Remove all** button to clear it and then **Save** the empty list.

The grouping of the nutrients in the *Select nutrients from* pane is mainly self-explanatory. The **Food labelling** group contains nutrient values that are based on the data from *The Composition of Foods* but are computed in a slightly different way. These comply with the EU requirements for food labelling: *Regulation (EU) 1169/2011 of the European Parliament*. These values are used automatically when food label data is requested, but they can also be added individually to your nutrient lists in their own right.

The **Properties** group contains items that are not strictly nutrients, such as **edible proportion** and **specific gravity** that come directly from the UK food tables. Others, like **served edible proportion** and **specific gravity, conv.** are derived and are user-modifiable values.

**Served edible proportion** (SEP) is the usable proportion of a food in terms of the actual nutrient values for that food, rather than the food-preparation wastage factor that is sometimes given as the **edible proportion** (EP). For example, for food MW6 748, *green beans, raw*, the EP is given as 0.83 but the total nutrient weight per 100 grams is almost 100 grams, so the SEP is calculated as 1.0. However, for UKN 18-211, *pork chops with bone*, the EP is 0.86 as is the total nutrient weight per 100 grams, so the SEP is set the same as the EP. SEP values are used during the computation of **Nutrient contribution by weight** graphs.

**Specific gravity, conv** is the value of specific gravity used to convert a quantity to grams if it is input as a **volumetric unit**. Its value can be set by a system administrator using the **add new nutrients to foods** option. If the food is one of the few with a **specific gravity** value in the UK food tables, the specific gravity, conv field is initialised with the same value.

There are two nutrient groups containing fatty acids. The first, **Fatty acids**, contains the fatty acids, using the structure-based nomenclature used in the latest **Fatty acids** supplement (1999). The other, **Undifferentiated fatty acids**, uses the non-structure-based nomenclature first introduced with the **Fish & fish products** supplement (1993) and used until the **Meat & meat products** supplement (1997). Use of fatty acids from the former, more recent group is recommended. They should not be mixed.

Finally, the **Minerals** group has a derived item at the end called **Salt equivalent**, the number of grams of common salt that would be need to supply the quantity of sodium present in the analysis.

### 4.3 Compare two foods

From the **Foods** menu, choose **Compare two foods**

Compare the nutrient values of any two foods or ingredients in the database. Select two foods and the quantities to be compared (which need not be equal) and obtain a list of the two sets of nutrient values together with the differences and percentage differences.
In Dietplan7, once a recipe has been saved, it can be treated just like any other food in the database. It has a data-source code of RCP and a food code identical to the recipe code. So you can also use this option to compare any two recipes or, indeed a recipe with any other food.

The dialog asks for two foods to be selected and for the required comparison quantities to be entered. Both foods can be specified either by entering the data source and food reference codes directly, or clicking **Browse** and using dialog with any of the **Food search** methods. Default quantities are 100 grams each but either can be changed and the two quantities need not be the same. To view the results, click the **Compare** button or the notebook **Result** tab.

The nutrient values of the two foods are displayed together with the differences and percentage differences. The display uses the current **selection of nutrients**. Differences are expressed as the amount of the nutrient in the second food relative to the amount the first, so selecting the two foods in the opposite order will produce different numerical values.
You can also click the Report button or the notebook tab of the same name to format the results as a PDF document that can be viewed, printed and/or saved.

4.4 Search foods for nutrient

From the Foods menu, choose Nutrient search

Display a list of a selected group of foods showing the values of a chosen nutrient per 100 grams, by default, in ascending or descending order.
The Nutrient name is chosen from a drop-down list by highlighting the one you require. The food tables to be searched (including your own foods and added recipes) are selected by ticking the appropriate data sources.

You can confine your search to a single Food group and/or a single Food category by selecting from one or both of the drop-down lists. The Food quantity to be reported is 100 grams by default but you can alter this as you wish.

You can also specify a threshold limit for the nutrient quantity, below which foods will be excluded from the list. The default threshold value is zero but if you choose a very large group or select all foods it may be helpful to set an appropriate threshold in order to keep the resulting list to a manageable size.
You can alter the order in which the list is displayed by clicking on any of the column-header labels. One click will sort the list in ascending order of the selected column and a second click will reverse the sorted order.

You can also highlight any row and display the full nutrient composition of the selected food by either double-clicking the row, pressing the keyboard Enter key, or clicking on the Show details button.

Click the Save button to write the list to a text file with a name of your choice and save it, or the Print button to output the list to your printer. You can also produce a histogram or barchart showing the nutrient content of each food, by clicking Graph.

Click the Back button or the notebook's Selection tab to return and make a different selection.

4.5 Nutrient exchange values

From the Foods menu, choose Nutrient exchange

Display a sorted list of the nutrient exchange values of a selected group of foods. That is, the number of grams of each food needed to provide a specified quantity of the chosen nutrient.

In this option the exchange quantity can be specified for any selected nutrient and all the values for a chosen group of foods are calculated and displayed. If you want to know the exchange values for single, specified foods use the option The composition of foods.
The Nutrient name is chosen from a drop-down list by highlighting the one you require. The food tables to be searched (including your own foods and added recipes) are selected by ticking the appropriate data sources.

You can confine your search to a single Food group and/or a single Food category by selected from one or both of the drop-down lists. The Nutrient quantity to calculate, that is the exchange value can be entered using the units normally associated with that nutrient, so will be shown in grams, milligrams, micrograms, kiloCalories or kiloJoules as appropriate.

You can also specify an upper threshold limit for the computed quantities of foods needed to provide the nutrient quantity you have chosen. Quantities above this value, representing foods that contain the smallest amounts of the nutrient, will be excluded from the list. The default threshold value is 9999 grams but you can adjust this as required.
You can alter the order in which the list is displayed by clicking on any of the column-header labels. One click will sort the list in ascending order of the selected column and a second click will reverse the sorted order.

You can also highlight any row and display the full nutrient composition of the selected food by either double-clicking the row, pressing the keyboard Enter key, or clicking on the Show details button.

Click the Save button to write the list to a text file with a name of your choice and save it, or the Print button to output the list to your printer. You can also produce a histogram or barchart showing the nutrient exchange value of each food, by clicking Graph.

Click the Back button or the notebook's Selection tab to return and make a different selection.
5. Recipes & Dishes

5.1 Working with recipes

Although this section refers explicitly to recipes, these facilities can be used equally well for any combination of foods that are often used together. This could be a group of ingredients used frequently in other recipes, such as short-crust pastry, or a set of foods that are often consumed together, such as toast with butter and marmalade and tea with milk and sugar. All recipes can be loaded into other recipes or into diet assessments or meals & menus. The recipe can be loaded as a single item, under its own name, with the ingredients in the same proportions as the original, or the ingredients can be loaded as individual items.

Check first that the status pane at the bottom of the main window is showing Recipes & Dishes. If not, follow the procedure to select the type of analysis.

Start a new recipe:

From the File menu, select New

- or -

From the toolbar, click on the Create new analysis button

- or -

Press Ctrl and N

The recipe notebook is opened in the main window, in the Selection page. The Recipe code is the key under which the recipe is saved in the database and every recipe must have a unique code. It can contain letters, numbers and other punctuation characters and be up to 16 characters long. If you are going to save many recipes it might be worth devising a simple classification coding system to assist retrieval as, when recalling recipes, you can specify and search for all or part of the code as well as for words or partial word strings in the recipe name. For example, the first two or three characters could be a mnemonic for the type of recipe - meat dishes, desserts, cakes etc. The number of codes you use depends on how finely you want to divide up your classification. The remaining characters could then be digits simply numbering the recipe within the group. Alternatively, you could use the whole of the code as an abbreviated recipe name in some way. If you are not concerned about the value of the code you can let the software allocate one for you: leave the Recipe code field blank, click Accept and the next available code in the sequence beginning R00001 will be used.
Open an existing recipe:

From the File menu, select Open

- or -

From the toolbar, click on the Open existing analysis button

- or -

Press Ctrl and O

If the recipe is one you have used recently, you can open it from the list of recently used items that appears at the foot of the main File menu by clicking on its recipe code.

If you want to look at an existing recipe and be sure that you do not make any changes inadvertently, select view-only mode before you open it.

You can search for recipes either by recipe code or by name using the same techniques as searching for foods and ingredients. Depending whether you tick Using whole words only, matching recipes will be displayed as you enter individual letters or whole words. To obtain a complete list of recipes, if not already showing, enter a space character into the search field.

The recipes that match your search criteria will be shown in the scrolling window below the search field. Initially in alphabetic, name order you can click any of the column headings in the window to sort by that column. A second click on the same heading will reverse the sort order for that column.

You can browse through the recipe list using either a single mouse click or with the cursor up/down keys. Details of the currently highlighted recipe appear in the fields below the selection list. Make your selection with a double click on the recipe list item or press the Enter key.

Save recipe:

When you have added all the new recipe ingredients or made amendments to an existing recipe, you must save the recipe in the database.

Click the Save button in the recipe notebook's Composition page

- or -

From the File menu, select Save
From the toolbar, click on the Save analysis button

- or -

Press Ctrl and S

Alternatively, you can choose to have the recipe saved automatically after each ingredient is added: Select Edit and Preferences and from the Behaviour Preferences tab, select Auto-save analysis after every food entered. This will apply to all future analyses until you change it.

If you have made changes to an existing recipe and you would like to keep the original as well as the new version, from the File menu, select Save As and you will be prompted for a new recipe code to save the changed recipe. You also have the option to amend the recipe name.

By default the same ingredient quantities will be saved in the new recipe (factor = 1.0) but you can set this to any positive value to adjust all the quantities proportionally. For example a factor of 2.0 will double all the quantities and a factor of 0.5 will halve them. In the above example, the original recipe was for 4 portions and the new version is for 6 (6/4 = 1.5).

If you have locked the database by using the view-only option, all these ways of performing a save will be inactive.

Delete recipe:

To delete a recipe, recall it as above and advance to the Composition page. Then from the File menu, select Delete. A warning message will be displayed if the recipe is being used in any other analysis in the database. You can still continue and delete the recipe but then, when any such analysis is recalled it will warn that one of its ingredients is missing.

Close recipe:

To close the recipe

Click the Close button in the recipe notebook's Composition page

- or -

From the File menu, select Close, or Close all to close all the open notebooks
From the toolbar, click on the Close analysis button.

You will be asked to confirm if you try to either close the recipe or exit Dietplan without saving any additions or alterations.

5.2 Entering recipe details

Once you have entered a new Recipe code for a new recipe, or selected an existing recipe, the fields in the Enter/confirm recipe details section of the Selection notebook page become active and you can add or edit their contents.

You can enter a descriptive Name. This name appears on all reports and lists and alongside the recipe code in the selection window when you are searching for a recipe, so helping to identify the recipes found. You can also search for the recipe using any word or string of characters occurring in the description. There is no restriction on the length of the recipe name.

You can associate a group code with the recipe if you wish. These are the standard 1 to 3 character food group codes used to classify all the McCance & Widdowson foods in the database. Click the Browse button for a list of available codes and their descriptions and select one if required. You can also search for recipes by group code, by entering the code into the recipe search field, preceded by an equals sign (=), for example =AD

You can optionally specify recipe portions either as the Number of portions, or the Portion size (weight per portion) or both. If you supply at least one of these, Dietplan is able to display nutrient information per portion as well as for the whole recipe. If no portion information is available, the nutrition per 100 grams is reported. However, if you supply both the number of portions and the size, the program is able to check that the ingredient quantities entered are consistent with these values. When the recipe is saved, if the total ingredient weight is not equal to the portion size times the number of portions, a warning is displayed. The program offers to adjust the number of portions, the portion size or the individual ingredient weights (pro rata) to resolve the inconsistency, and you can choose which item to change.

You can set target Dietary Reference Values for the recipe. This may not always be very useful as DRVs refer to the total daily intake of particular population groups, but there might be occasions where you want to show the relative contribution of the recipe to the DRVs for a typical or targeted group.
In a similar way, you can also select and set categories for the recipe. The purpose and use of this described in detail in the section on Category coding.

You can specify changes due to cooking the recipe by clicking the adjacent Set up button. You can specify a percentage weight gain or loss, due to the absorption or evaporation of water, and you can include estimated vitamin losses based on the chosen cooking method. If cooking changes are entered, the button title changes to Amend.

The number of portions, target DRVs and recipe categories can each be given predefined values using the Defaults option of the preferences function. The scope of a new recipe will show all such default values automatically but they can then be edited as required.

The dates of creation and latest change (if different) are displayed. These fields are maintained by the program itself and cannot be altered. If Dietplan user accounts have been enabled, the users responsible are also shown.

When all the details have been entered or amended, click the Continue button or the Composition tab of the analysis-notebook to move to the next stage.

5.3 Cooking changes
Clicking the Set up button associated with Cooking changes on the recipe Selection page brings up the following dialog. The absolute or percentage weight change of the raw ingredients during cooking can be entered. If a positive number is entered, this is interpreted as a gain due to the absorption of water and if the number is negative it is taken as a loss due to the evaporation of water. For gain or loss, the nutrient content of the recipe is adjusted proportionately.
Guideline values of percentage weight changes during cooking of a wide range of foods are included in the 7th edition of McCance & Widdowson's *The Composition of Foods* and these can be viewed by clicking **Guide values**.
It is also possible to choose one of a number of pre-defined cooking methods. If chosen, the corresponding percentage vitamin losses, as provided in McCance & Widdowson's *The Composition of Foods, 7th edition* will be applied to each of the ingredients. To preview the total values, click **Show changes**

5.4 Using the recipe composition page

**Using the Composition page of the recipe analysis notebook**
The composition page of the recipe notebook is where all the ingredients are added and the current ingredient list and nutrient values are displayed.

The page contains three separate, individually resizable window panes and two groups of buttons. The upper-left, scrollable display shows the values of the currently selected set of nutrients. Each nutrient shows its total quantity, the quantity per portion (if applicable), the dietary reference value (if selected) and the quantity per 100 grams. A single-character qualifying indicator is also shown alongside each nutrient total, if appropriate. The window has a pale-yellow (by default) background to indicate that the contents are read-only.

The lower-left, scrollable display shows a list of the recipe ingredient source and reference codes, weights and names. The Source, RefNo and Weight columns in the window have a white background, indicating that the contents can be added or edited directly, if required. While not as flexible as adding ingredients using the add-foods button, you may find it convenient for adding ingredients whose codes are known, or for making adjustments to an ingredient weight. You can also select one or more complete rows of ingredients to cut, copy or paste them into any other open analysis notebook.

The upper-right, display shows read-only, summary totals for the recipe on one tab and an editable text box in another where free-text recipe comments or instructions can be entered. For recipes there are also tabs labelled Allergens, FoP, NPM and Label that respectively display allergen information, front-of-pack nutrition traffic-light labelling, nutrient profiling model and the recipe food label.

The Action group of three buttons enables you to add foods and other recipes or comments to the recipe or to save the recipe in the database.
The Page group of five buttons enables you to switch to any of the other analysis-notebook pages, namely, Back (Selection), Report, Graph or Grid, or to Close the recipe.

5.5 Recipe allergens
For recipes, the upper right pane of the Composition page has a tab labelled Allergens that contains a summary of the 14* specified allergens in the recipe ingredients. For all these allergens, if any of the recipe ingredients positively contain that allergen it is reported as Yes, if all the recipe ingredients are each declared not to contain the allergen it is reported as No. Otherwise its state is reported as unknown (---)

* Food allergen labelling and requirements under the EU Food Information for Consumers Regulation No. 1169/2011

5.6 Front of pack nutrition label
For recipes, the upper right pane of the Composition page has a tab labelled FoP that follows the Food Standards Agency (2013) Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets and contains front-of-pack nutritional traffic light labelling information for the recipe.
Nutrient values per 100g and per portion of the specified nutrients: Fat, Saturated fat, Total sugars and Salt are displayed and colour coded green, amber or red when the values are low, medium or high according to the guidelines. The percentage reference intake for each of the nutrients is also shown.

The recommended levels are different for foods and drinks and the page contains a field for this to be specified.

5.7 Food label

For recipes, the upper right pane of the Composition page contains a tab entitled Food label. This displays information in the format and using the nutrient and energy conversion factors specified in the 2011 EU regulations.
You can choose to show just the mandatory items or include the optional macro nutrients together with a list of vitamins and minerals that have values greater than 15% of the NRV. You can also show the vitamins and minerals that have less than the significant 15% value.

5.8 Nutrient profiling model (NPM)

For recipes, the upper right pane of the Composition page contains a tab labelled NPM. This displays the results of applying the Nutrient Profiling Model to the recipe (Food Standards Agency, 2004 and Department of Health 2011).
The model was developed to provide Ofcom, the broadcast regulator, with a tool to differentiate foods based on the nutrient content of 100g of the item, in the context of television advertising foods to children.

A simple scoring system awards points for A nutrients (energy, saturated fat, total sugar and sodium), and for C nutrients (fruit, vegetables and nut content, fibre and protein). The score for C nutrients is then subtracted from the score for A nutrients to give the final nutrient profile score.

Foods scoring 4 or more points, and drinks scoring 1 or more points, are classified as less healthy and are subject to Ofcom’s controls on the advertising of foods to children on TV.

The UK foods in the database have been given categories of FVN or DFVN - [Dried] Fruit, Vegetables or Nuts - as appropriate and ingredients with these categories are used to compute the percentage FVN content score. They can be seen by using the View/Alter button.
Temporary changes to the ingredient categories can be made here and will affect the current profile score. Permanent changes can be made using the food category tools on the Admin menu.

5.9 Reporting multiple recipes
From the Views menu, select Recipe summaries.

With this option you can select a range of recipes from a search-list and either produce a detailed report on each one, in the same way that each would be reported by the Report page in its own analysis-notebook, or produce a summary report in a variety of different formats.
You can create a list of recipes from which to make your selections using any of the methods you would use to open an existing recipe, or enter an asterisk to display all recipes. The candidates are shown in a selection list in the usual way, and here you can choose as many recipes as you wish by making multiple selections.

When all the required recipes have been highlighted, you can select the format of the report you want, either a set of detailed reports, or a summary in one of four different formats:

- One recipe summary per table with nutrients listed across the page.
- One recipe summary per table with nutrients listed down the page.
- All recipe summaries in one table, nutrients listed across.
- All recipe summaries in one table, nutrients listed down.

Each summary report provides information about the nutrient content of each of the selected recipes but does not reveal any information about ingredients or ingredient quantities. The nutrients reported are those in the currently selected set of nutrients, for example:
The summary report is written to a PDF file that you can Save or Print in the usual way.
6. Meals & Menus

6.1 Working with menus

Check first that the status pane in the bottom of the main window says Meals & Menus. If not, follow the procedure to select the type of analysis.

Start a new menu:

From the File menu, select New

-or-

From the toolbar, click on the Create new analysis button

-or-

Press Ctrl and N

The menu notebook is opened in the main window, in the Selection page. The Menu code is the key under which the menu is saved in the database and every menu must have a unique code. It can contain letters, numbers and other punctuation characters and be up to 16 characters long. If you are going to save many menus it might be worth devising a simple classification coding system to assist retrieval as, when recalling menus, you can specify and search for all or part of the code as well as for words or partial word strings in the menu name. If you are not concerned about the value of the code you can let the software allocate one for you: leave the Menu code field blank, click Accept and the next available code in the sequence beginning M00001 will be used.

Open an existing menu:

From the File menu, select Open

-or-

From the toolbar, click on the Open existing analysis button

-or-

Press Ctrl and O

If the menu is one you have used recently, you can open it from the list of recently used items that appears at the foot of the main File menu by clicking on its menu code.
If you want to look at an existing menu and be sure that you do not make any changes inadvertently, select **view-only mode** before you open it.

You can search for menus either by menu code or by name using the same techniques as when searching for foods and ingredients. Depending whether you tick **Using whole words only**, matching menus will be displayed as you enter individual letters or enter words. To obtain a complete list of menus, if not already showing, enter a space character into the search field.

The menus that match your search criteria will be shown in the scrolling window below the search field. Initially in alphabetic, name order you can click any of the column headings in the window to sort by that column. A second click on the same heading will reverse the sort order for that column.

You can browse through the menu list using either a single mouse click or with the cursor up/down keys. Details of the currently highlighted menu appear in the fields in below the selection list. Make your selection with a double click on the list item or press the **Enter** key.

**Save menu** :

Click the **Save** button in the menu notebook's **Composition** page

-or-

From the **File** menu, select **Save**

-or-

From the toolbar, click on the Save analysis button

-or-

Press **Ctrl** and **S**

Alternatively, you can choose to have the menu saved automatically after each item is added: Select **Edit** and **Preferences** and from the **Behaviour Preferences** tab, select **Auto-save analysis after every food entered**. This will apply to all future analyses until you change it.
If you have made changes to an existing menu and you would like to keep the original as well as the new details, from the **File** menu, select **Save As** and you will be prompted for a valid, unused menu code to save the changed menu details.

If you have locked the database by using the **view-only** option, these ways of performing a save will all be inactive.

**Delete menu**

To delete a menu, recall it as above and, from the **File** menu, select **Delete**

**Close menu:**

To close the menu analysis

Click the **Close** button in the menu notebook’s **Composition** page

-or-

From the **File** menu, select **Close**, or **Close all** to close all the open notebooks

-or-

From the toolbar, click on the Close analysis button 🛠️

You will be asked to confirm if you try to close the menu or exit Dietplan before saving any additions or alterations.

6.2 Entering menu details

Once you have entered a menu code for a new menu, or selected an existing menu, the fields in the **Enter/confirm menu details** section of the **Selection** notebook page become active and you can add or edit their contents.

![Amend/confirm menu details](image)

You can enter a descriptive **Name**. This name appears on all reports and lists and alongside the menu code in the selection window when you are searching for a menu, so helping to identify the menus found. You can also search for the menu using any word or string of characters occurring in the description. There is no restriction on the length of the menu name.

In the group of fields entitled **Scope**, specify the range of **Days, Meals, Courses** and, if applicable, **Choices** of dishes that the menu will cover. You should specify the **maximum** number of days, meals per day, courses per meal and choices per course that you expect to encounter. You do not have to use all the groups on every occasion and spare groups can be left blank.
You do not have to use all the different levels, for example, a school meals menu (1 meal a day) could leave the Meals group blank and specify, say, 20 days, 5 courses and 4 choices. Again a Course is not necessarily an item that is eaten on its own, A main dish can be divided into, for example, four 'courses' - a meat selection (3 choices, say), a vegetable selection (4 choices), pasta/rice/potatoes selection (3 choices), and a salad selection (3 choices). Use the groups in the way that best suits your own application. You can name your groups from the defaults, for example, Course 1, Course 2, Course 3... etc. to whatever is most appropriate, and save the names in each individual menu. See Naming analysis groups. Any group level left blank will be omitted from displays and reports.

At the start of each new menu, you can choose what nutritional standards, if any, to associate with the menu. You can choose between the familiar dietary reference values and the Nutritional Standards & Requirements for School food 2007 (NSRS).

To set the guidelines click the adjacent Set up button and enter or select the appropriate details. When guidelines have been set, the button title changes to Amend.

In a similar way, you can also select and set categories for the menu. The purpose and use of this described in detail in the section on Category coding.

The dates of creation and latest change (if different) are displayed. These fields are maintained by the program itself and cannot be altered. If Dietplan user accounts have been enabled, the users responsible are also shown.

When all the details have been entered or amended, click the Continue button or the Composition tab of the analysis-notebook to move to the next stage.

6.3 Using the menu composition page

The composition page of the menu notebook is where all menu foods and ingredients are added and the ingredient list and nutrient values of the current menu-group are displayed.
The page contains three separate, individually resizable window panes and three groups of buttons. At any one time, the contents of the windows refer to the current group within the menu, such as Day 2, Course 3, Choice 1 as illustrated. The identity of the current group is always displayed in the Status bar at the bottom of the main window. It is also shown in the Summary and the Navigate tabs in the upper-right window. To review the contents of the entire menu, select Review menu contents on the Tasks menu.

The upper-left, scrollable display shows the values of the currently selected set of nutrients of the current group. Each nutrient shows its total quantity, the dietary reference value (if selected) and the quantity per 100 grams. A single-character qualifying indicator is also shown alongside each nutrient total, if appropriate. The window has a pale-yellow (by default) background to indicate that the contents are read-only.

The lower-left, scrollable display shows a list of the menu foods and ingredients in the current group. The Source, RefNo and Weight columns of the window have a white background, indicating that the contents can be added or edited directly, if required. While not as flexible as adding items using the add-items button, you may find it convenient for adding ingredients whose codes are known, or for making adjustments to an ingredient weight. You can also select one or more complete rows of ingredients to cut, copy or paste them into any other open analysis notebook.

The upper-right, tabbed-display has a Summary tab containing read-only, summary totals for the current group, a Comment tab with an editable text box where free-text menu comments or other notes can be entered, and a Navigate tab where the whole menu structure is displayed as an expandable tree. Clicking on
an individual leaf node of the tree selects the corresponding menu group in the other windows.

The **Action** group of three buttons enables you to add *foods and recipes* and *comments* to the menu and to **save** the menu in the database.

The foods in each part of the menu must be added into the correct group, corresponding to the day, meal and course and choice. In addition to selecting the required section using the tree view as described above, you can also use the **Next** or **Previous** buttons in the **Navigate** group to move forward or go back one group at a time. You can also use designated keyboard combinations and items on the **Tasks** menu to move between the groups. See the section titled Navigate between analysis groups.

The **Hide empty** check box inside the Navigate group can be used to conceal all empty menu groups in the menu tree view. Not every meal you enter is likely to have the same number of courses and choices, for example, and you can exclude the unused groups by clicking this box. It will probably be more useful to do this after the whole menu has been entered, but you can check and uncheck the box whenever you wish and the tree view will alter to reflect your choice.

The Page group of six buttons enables you to switch to any of the other analysis-notebook pages, namely, **Back** (Selection), **Build** (Construction), **Report**, **Graph** or **Grid**, or to **Close** the menu.

### 6.4 Using the menu construction page

The construction page of the menu notebook is similar to the small **Navigate** window on the composition page in that it shows a tree-view of the whole menu but it occupies the whole notebook page and it contains all the tools needed to build and maintain menus.
The entire menu is displayed as a tree, with the whole menu at the root and branching into days, meals, courses and choices depending on how the menu structure has been defined. The food items in the menu are shown as the leaves of the tree. Varying amounts of detail can be displayed by clicking the plus (+) and minus (-) boxes at the tree nodes or you can click the Expand all or Collapse all buttons.

If a leaf node is selected, i.e. highlighted by clicking on it, the Show button is active and using it displays a dialog containing a grid showing the food items in that part of the menu. The grid is the same as the one for the corresponding menu section on the composition page. You can also add or edit food items in this grid or use the Add item button in the dialog in the same way as on the composition page.

The construction page also contains buttons that enable you to Copy, Cut, Paste or Delete whole sections of the menu, pasting either to a selected part of the same menu or to another menu open in a different notebook. The operations can be carried out at any level, that is you can copy and paste an entire day to another day, a meal to a meal etc. even a whole menu to another menu. Whatever level you choose, all the food items contained within that level are copied, cut, pasted or deleted. If the receiving level already contains food items you can choose either to replace or merge them with the items being added.

There is also a Paste special button (not shown above) and on the right-click menu, that also pastes a previously copied or cut selection with the additional option of amending the quantity of each pasted food item in proportion to a supplied factor.
By default the same food quantities will be pasted (factor = 1.0) but you can set this to any positive value to adjust all the quantities proportionally. For example a factor of 2.0 will double all the quantities and a factor of 0.5 will halve them. In the above example, each of the pasted food quantities are being increased by 10 percent.

6.5 Review menu contents
The list of foods in the Composition page of the menu notebook only shows the content of the current group.

To view the contents of the whole analysis, from the Tasks menu, select Review menu/diary contents.

If the menu contains choices and you have selected choices from the menu, click the chosen only checkbox to display just the chosen items.

You can click on any column heading to sort by that column. Click again to reverse the sort order.
Click **Save** to bring up a file selection dialog to specify the name of a text file where the list, as seen, will be saved. Click **Print** to send the text of the list to a printer.

### 6.6 Select choices from menu

When a menu contains choices of items as the lowest-level grouping, you can analyse the choices in a number of ways that can be chosen from the Aggregation option in Define report on the View menu or via the Design button on the Report page itself.

One such way is to make explicit choices from the menu and report the chosen items. This can be also done conveniently from the Tasks menu by selecting *Choose items from menu*.

![Choose dishes from 5 day senior-school menu](image)

The whole menu is displayed as a tree structure and the leaf-nodes of the tree, the menu choices, contain selection tick-boxes. Within each set of choices you can tick one choice.

If the tree node you require is in its ‘collapsed’ state, click the + symbol beside its folder icon to expand it. Repeat as necessary at each branch until the leaf nodes are showing.

The choices are saved in the database with the other menu details. They are shared, and may be changed by anyone who has access to the menu.

When choices are made from the menu an additional column is shown in the nutrients panel on the Composition page which displays the nutrient totals for all the chosen items alongside the nutrient values for the current group of items.
The column entitled *ChosenTot* is updated dynamically so if both the Composition page and the *Choose items from menu* dialog are visible, the nutrient totals can be seen to change as items are selected from the menu.

### 6.7 Specify number of servings of menu choices

When a menu contains choices of items as the lowest-level grouping, you can analyse the choices in a number of ways that can be chosen from the *Aggregation* option in *Define report* on the *View* menu or via the *Design* button on the Report page itself.

One such way is to specify the number of servings of each choice and produce a weighted-average nutrition analysis. This can also be done from the *Tasks* menu by selecting *Edit/review menu servings*
The dialog displays the currently defined set of servings, if any, and allows individual servings to be entered or altered.

New at version 6.60, you can also specify the number of meals provided, in which case the numbers of servings entered should reflect the actual number of servings of each choice and not just the relative ratio of servings between each choice. If this information is entered, the nutritional values of an average meal will be reported.

You can either enter the total number of meals provided for the whole menu cycle, in the box at the bottom of the dialog, or you can enter the number of meals provided on each day separately. In the latter case, the bottom box is disabled and shows the total number of meals calculated from the individual day values.

If you wish to calculate the number of lunches provided in secondary schools using the method currently specified by the Department of Education, namely:

"The till receipts for a given period for all sales of food to which school lunch standards (including nutrient-based standards from 2009) have been applied, divided by the monetary value in the dining room of a free school meal, plus the number of free school meals actually provided"
If you have this information available, click the *Meals provided* field you wish to enter, then the **Calculate** button and type in the required values in the pop-up dialog. Click **OK** and the calculated value will appear in the field you indicated.

Servings and meals provided are saved in the database alongside the other menu details. They are shared, and may be changed by anyone who has access to the menu.

**6.8 Search menu for nutrient**

From the **Tasks** menu, choose **Search menu/diary for nutrients**

Display the values of a chosen nutrient in specified sections of a menu, in ascending or descending order.

The *Nutrient to find* is chosen from a drop-down list by highlighting the one you require. You can decide what groups are to be searched, that is, per day, per meal, per course or per choice. You can also specify a threshold limit for the nutrient content, below which groups will be excluded from the list. If there is a list of items chosen from the menu you can tick the box to include only the chosen menu items in the search.

When you click **Search** a progress bar indicates the progress of the scan through the menu.
You can alter the order in which the list is displayed by clicking on any of the column-header labels. One click will sort the list in ascending order of the selected column and a second click will reverse the sorted order.

You can also highlight any row and display the full nutrient composition of the selected food by either double-clicking the row, pressing the keyboard **Enter** key, or clicking on the **Show details** button.

You can also click the **Save** button to put the list into a text file with a name of your choice and save it, or the **Print** button to produce a simple text-only listing on your printer.

Click the **Back** button to return to the previous dialog and make a different selection.
7. Personal Diet Assessments

7.1 Working with registrations

Diet assessments or diaries are entered and stored for named individuals who might be clients, patients or customers depending on your circumstances. Before the analysis of dietary intake can begin, it is necessary to create or recall a registration record for the individual and to enter or confirm their personal details.

You can enter and save an unlimited number of diet assessments for any individual. Each assessment can be either an averaged assessment or a daily assessment diary.

Check first that the status pane in the bottom of the main window says Diet assessments. If not, follow the procedure to select the type of analysis.

Create a new registration:

From the File menu, select New

-or-

From the toolbar, click on the Create new analysis button

-or-

Press Ctrl and N

The assessment analysis notebook is similar to the ones opened for recipes and for menus, except there is an extra tabbed page in front if the Selection tab, entitled Registration. It is this page which is opened first.

For a new registration, enter a unique registration number or code to identify the individual being registered. Hospital-based users, for example, will probably use a patient’s hospital number, but any coding system may be used. It can contain letters, numbers and other separating punctuation characters and be up to 16 characters long.

If you do not wish to allocate explicit registration numbers you can you can let the software allocate one for you: leave the Registration No field blank, click Accept and the next available code in the sequence beginning #00001 will be used. You can choose whether or not to include the allocated # (hash) number on reports in...
the **Details** tab of the report designer - select **Design report** on the **View** menu or click the **Design** button when a report is being viewed.

**Open an existing registration:**

From the **File** menu, select **Open**

- or -

From the toolbar, click on the **Open existing analysis** button

- or -

Press **Ctrl** and **O**

If the registration is one you have used recently, you can open it from the list of recently used items that appears at the foot of the main **File** menu by clicking on its registration code.

If you want to look at an existing registration and/or assessment and be sure that you do not make any changes inadvertently, select **view-only mode** before you open it.

You can search for registration records either by number or by surname using the same techniques as when searching for foods and ingredients. Depending whether you tick **Using whole words only**, matching records will be displayed as you enter individual letters or enter words.

To obtain a complete list of all registrations, if not already showing, enter a space character into the search field or ensure that the **Pre-select** box is ticked.

Version 6.70.20 of Dietplan introduced the use of **User Groups**. During the setting up of **Dietplan users** by an administrator it is possible to designate any user as a member of one of the defined **user groups** (or of None). After that, registration records created by a group member will only be visible to members of that group. That is, each group will only be able to access its own registrations and assessments. Registrations created by a user who is not a member of any group will be accessible to everyone, as before.

The registrations that match your search criteria will be shown in the scrolling list below the search fields. Initially in surname order, you can click any of the column headings in the list to sort by that column. A second click on the same heading will reverse the sort order for that column.
You can browse through the registration list using either a single mouse click or with the cursor up/down keys. Details of the currently highlighted registration appear in the fields in below the selection list. Make your selection with a double click on the list item or press the Enter key.

**Save registration:**

There is no explicit action necessary to save the details of a registration. It is done automatically as you leave the Registration page of the assessment notebook, either by clicking Continue or selecting one of the other notebook page tabs.

**Close registration:**

Having opened or created a registration record, the normal action would be to continue and open or create an assessment. However, to close the registration at this point:

From the File menu, select Close, or Close all to close all the open notebooks -or-

From the toolbar, click on the Close analysis button

### 7.2 Entering personal details

Personal registration details are stored in the database. They are stored separately from assessments themselves because any person can have an unlimited number of assessments and this ensures that the same details are available to each assessment and avoids re-entry and duplication of the data. The saved details identify the person and provide information to permit the appropriate dietary reference values to be calculated. They can also record additional information that can be chosen for inclusion in the assessment report.

The recording of personal data on computer in the United Kingdom is regulated by the Data Protection Act. You should ensure that you comply with its requirements before entering such information.

-Surname is the only mandatory item. Sex and Date of Birth are both used in the calculation of dietary reference values, so if either are omitted, the selection and calculation of DRVs is disabled in all subsequent assessments.
Contact details like postal Address, Telephone number and E-mail address are all optional.

Sex can be selected from a drop-down list and Date of Birth can be entered in a variety of formats. If you do not know the exact date of birth, enter either the full year of birth e.g. 1969 or the current age e.g. 23. The age will be converted to the year of birth and redisplayed. Dates in the future are not allowed.

Height in metres and Weight in kilograms can be included, for reference, on the printed report and are used for the computation of the body mass index. The weight, if specified, is also used in the calculation of the EAR values for energy.

The Referred by field can be used to identify the source of referral of the subject, for any other information you wish, or simply left blank.

You can also include a free-text note of any length which, if present, will be printed on the report. This is in addition to the notes and comments that can be included with each individual assessment.

When all the details have been entered or amended correctly, click the Continue button or the Selection tab of the analysis-notebook to move to the next stage of the analysis, which is to open or create an assessment.

7.3 Working with assessments

After confirmation of the registration details, the Selection page of the assessment analysis notebook shows a list of all the person's saved assessments.

To create a new assessment, highlight and select the last item in the list, coloured blue.

You can browse through the assessment list using either a single mouse click or with the cursor up/down keys. Details of the currently highlighted assessment appear in the fields in below the selection list. Make your selection with a double click on the list item or press the Enter key. The fields in the Enter/confirm assessment details section of the notebook page become active and you can add or edit their contents.

**Save assessment:**

When you have made amendments to an existing assessment or added all the details of a new one, you must save it in the database:
Click the **Save** button in the assessment notebook’s **Composition** page

- or -

From the **File** menu, select **Save**

- or -

From the toolbar, click on the Save analysis button 🔄

- or -

Press **Ctrl** and **S**

It is not necessary to supply or to keep track of individual, unique codes for assessments. This is handled automatically by Dietplan which links all the assessments through the person’s unique registration code number.

Alternatively, you can choose to have the assessment saved automatically after each food is added: Select **Edit** and **Preferences** and from the **Behaviour Preferences** tab, select **Auto-save analysis after every food entered**. This will apply to all future analyses until you change it.

If you have made changes to an existing assessment and you would like to keep the original as well as the new details, from the **File** menu, select **Save As** and you will be prompted for a new title to help you to distinguish them.

If you have locked the database by using the **view-only** option, all these ways of performing a save will be inactive.

**Delete assessment**

To delete an assessment, recall it as above and, from the **File** menu, select **Delete**

**Close assessment:**

To close an assessment

Click the **Close** button in the assessment notebook’s **Composition** page

- or -

From the **File** menu, select **Close**, or **Close all** to close all the open notebooks

- or -

From the toolbar, click on the Close analysis button 🔄

You will be asked to confirm if you try to either close the assessment or exit Dietplan without saving any additions or alterations.

**7.4 Entering assessment details**

When starting a new assessment you can choose the assessment **Type** to be either an **Averaged intake** or an **Intake diary** as in the examples below.

Once the assessment is created, after clicking **Continue**, it is not possible to change from one type to the other. So at this point a dialog pops up asking you to confirm your choice. You can suppress this by de-selecting **Confirm assessment type when creating new** in **Edit | Preferences**.
For an averaged intake assessment you need only specify the number of days over which the foods being entered were consumed. No information is recorded about when each food was eaten. At the end, an analysis can be produced that reports both the total and average daily intake. If your assessments are all usually for the same number of days, you can set a default value using the Defaults option in the preferences function. Each new assessment will show this value automatically and it can be altered if required.

An intake diary assessment records consumption on individual days and also (optionally) at individual meals and courses within meals. So it is necessary to specify the maximum number of days (and meals and/or courses) that will be entered. The foods in each defined sub-group are all entered separately so that each can be analysed separately as well as being analysed in specific combinations of groups.

For many assessments, an averaged intake analysis is sufficient and, because there is more work involved in entering a full intake diary, it is probably not necessary to select this type unless you really need the more detailed breakdown it provides.

It is not necessary to use all the levels of detail unless you wish to. If you do not want meals broken down into individual courses, for example, leave Max courses per meal blank and enter all the foods, eaten within each meal, together in the same group. Any grouping level left blank will be omitted from displays and
reports. You can name your groups from the defaults, for example, Course 1, Course 2, Course 3... etc. to whatever is most appropriate, and save the names in each individual assessment.

Two additional, optional items can also be specified in an intake diary: the date of each day and the time of each meal. The dates are specified by entering the date, or day or the week, of day 1 and subsequent values are calculated from this, assuming the days are contiguous. Either enter the date of day 1 in the appropriate box or select the day of the week from its drop-down list. Click Yes or No in the Enter meal times radio box if you want to record meal times or not. The times themselves are entered in the Add items dialog when foods are added to the diary on the Composition page. The time of each meal, as HH:MM, must be entered if Yes is selected. If either of these items are recorded, their values appear on the Grid page and in csv (spreadsheet) export files.

The Assessment date is used to calculate the person's age and age-related dietary reference values. By default this is the date the assessment is entered into Dietplan but it can be amended here.

You can optionally enter a Title or a brief description of the assessment for inclusion in reports and to assist in identifying it during retrieval.

A snapshot of the person's current Height and Weight is taken from the registration record and saved along with the assessment so that future changes in height and weight do not alter historical values. These are shown in the dialog and they can be altered if you need to change them. You can also enter a Target weight and it will be used in the calculation of reference values instead of the actual weight.

There is an option to choose dietary reference values (DRV) or recommended daily allowances (RDA) for the assessment. To set them up, click the adjacent Set up button and enter or select the appropriate details. When set, the button title changes to Amend.

In a similar way, you can also select and set categories for the assessment. The purpose and use of this described in detail in the section on Category coding.

The dates of creation and latest change (if different) are displayed. These fields are maintained by the program itself and cannot be altered. If Dietplan user accounts have been enabled, the users responsible are also shown.

When all the details have been entered or amended, click the Continue button or the Composition tab of the analysis-notebook to move to the next stage.

7.5 Using the assessment composition page

The composition page of the assessment notebook is where all assessment foods are added and the food list and nutrient values of the assessment are displayed. The page varies slightly in appearance depending on whether an averaged intake or an intake diary is being entered.
A page displaying an averaged intake assessment contains three separate, individually resizable window panes and two groups of buttons. The upper-left, scrollable display shows the values of the currently selected set of nutrients. Each nutrient shows its total quantity, the quantity per day (if applicable), the dietary reference value (if selected) and the quantity per 100 grams. A single-character qualifying indicator is also shown alongside each nutrient total, if appropriate. The window has a pale-yellow (by default) background to indicate that the contents are read-only.

The lower-left, scrollable display shows a list of the food source and reference codes, weights and names. The Source, RefNo and Weight columns in the window have a white background, indicating that the contents can be added or edited directly, if required. While not as flexible as adding items using the add-foods button, you may find it convenient for adding foods whose codes are known, or for making adjustments to a food weight. You can also select one or more complete rows of foods to cut, copy or paste them into any other open analysis notebook.

The upper-right, display shows read-only, summary totals for the assessment on one tab and an editable text box in another where free-text comments or other notes can be entered.

The Action group of three buttons enables you to add foods and other recipes or comments to the assessment or to save it in the database.

The second, Page group of five buttons enables you to switch to any of the other analysis-notebook pages, namely, Back (Selection), Report, Graph or Grid, or to Close the assessment.
A page displaying an intake diary assessment contains three separate display-windows and three groups of buttons. At any one time, the contents of the windows refer to the current group within the assessment, such as Day 2, Meal 3, Course 2 as illustrated. The identity of the current group is always displayed in the Status bar at the bottom of the main window. It is also shown in the Summary and the Navigate tabs in the upper-right window. To review the contents of the entire assessment, select Review diary contents on the Tasks menu.

The contents of the upper and lower-left, scrollable displays are the same as for the average intake assessment described above.

The upper-right, tabbed-display has a Summary tab containing read-only, summary totals for the current group, a Comment tab with an editable text box where free-text comments or other notes can be entered, and a Navigate tab where the whole assessment structure is displayed as an expandable tree. Clicking on an individual leaf node of the tree selects the corresponding assessment group in the other windows.

The Action group of three buttons enables you to add foods and recipes and comments to the assessment and to save it in the database.

The foods in each part of the assessment must be added into the correct group, corresponding to the day, meal and course. In addition to selecting the required section using the tree view as described above, you can also use the Next or Previous buttons in the Navigate button group to move forward or go back one group at a time. You can also use designated keyboard combinations and items on the Tasks menu to move between the groups. See the section titled Navigate between analysis groups.
The **Hide empty** check box inside the **Navigate** group can be used to conceal all empty assessment groups in the tree view. Not every meal you enter is likely to have the same number of courses, for example, and you can exclude the unused groups by clicking this box. It will probably be more useful to do this after the whole assessment has been entered, but you can check and uncheck the box whenever you wish and the tree view will alter to reflect your choice.

The third, **Page** group of six buttons enables you to switch to any of the other analysis-notebook pages, namely, **Back** (Selection), **Build** (Construction), **Report**, **Graph** or **Grid**, or to **Close** the assessment.

### 7.6 Using the assessment construction page

The construction page of the assessment notebook is active only when assessment food diaries, not averaged assessments, are being processed. It is similar to the small **Navigate** window on the composition page in that it shows a tree-view of the whole assessment but it occupies the whole notebook page and it contains all the tools needed to build and maintain assessment diaries.

The entire assessment is displayed as a tree, with the whole assessment at the root and branching into days, meals, and courses depending on how the assessment structure has been defined. The food items in the assessment are shown as the leaves of the tree. Varying amounts of detail can be displayed by clicking the plus (+) and minus (-) boxes at the tree nodes or you can click the **Expand all** or **Collapse all** buttons.

If a leaf node is selected, i.e. highted by clicking on it, the **Show** button is active and using it displays a dialog containing a grid showing the food items in that part
of the assessment. The grid is the same as the one for the corresponding assessment section on the composition page. You can also add or edit food items in this grid or use the Add item button in the dialog in the same way as on the composition page.

The construction page also contains buttons that enable you to Copy, Cut, Paste or Delete whole sections of the assessment, pasting either to a selected part of the same assessment or to another assessment open in a different notebook. The operations can be carried out at any 'level', that is you can copy and paste an entire day to another day, a meal to a meal etc. even a whole assessment to another assessment. Whatever level you choose, all the food items contained within that level are copied, cut, pasted or deleted. If the receiving level already contains food items you can choose either to replace or merge them with the items being added.

7.7 Review assessment diary contents

For intake diary assessments, which have their foods and ingredients divided into different intake groups, the list of foods in the lower-left window of the Composition page of the analysis notebook only shows the content of the current group.

To view of the contents of the whole analysis, from the Tasks menu, select Review menu/diary contents.

You can click on any column heading to sort by that column. Click again to reverse the sort order.

Click Save to bring up a file selection dialog to specify the name of a text file where the list, as seen, will be saved. Click Print to send the text of the list to a printer.
7.8 Search assessment diary for nutrient

From the **Tasks** menu, choose **Search menu/diary for nutrients**

Display the values of a chosen nutrient in specified sections of an intake diary assessment, in ascending or descending order.

The **Nutrient to find** is chosen from a drop-down list by highlighting the one you require. You can decide what groups are to be searched, that is, per day, per meal, per course or per choice. You can also specify a threshold limit for the nutrient content, below which groups will be excluded from the list.

When you click **Search** a progress bar indicates the progress of the scan through the diary.
You can alter the order in which the list is displayed by clicking on any of the column-header labels. One click will sort the list in ascending order of the selected column and a second click will reverse the sorted order.

You can also highlight any row and display the full nutrient composition of the selected food by either double-clicking the row, pressing the keyboard Enter key, or clicking on the Show details button.

You can also click the Save button to put the list into a text file with a name of your choice and save it, or the Print button to produce a simple text-only listing on your printer.

Click the Back button to return to the previous dialog and make a different selection.
8. Tasks

8.1 About tasks

The topics in this section document the items on the Tasks menu and describe the things that can be done with an analysis regardless of its type whether it is a recipe, a menu or a personal assessment. Not all the tasks are applicable to every type of analysis so to find out about the tasks appropriate to a specific analysis type, read the section on Recipes & Dishes or Meals & Menus or Personal Diet Assessments and follow the links there that point back into this section.

Two other facilities are also described here under tasks but which are not actually on the Tasks menu but on the File menu and the toolbars. These are the Import and Export functions.

8.2 Selecting the type of analysis

Dietplan can be used for the nutritional analysis of recipes, menus (meal plans) and personal diets. Before starting an analysis, you must choose which type you are going to use. There are several ways to do this and can choose the method you find most convenient.

From the Tasks menu, choose Select analysis type

-or-

Press Ctrl + T

The following dialog appears:

![Select analysis type dialog]

The current selection is highlighted. To change it, click one of the other types, then the OK button.

Alternatively, from the File menu, pause with the mouse cursor over Select analysis type until a sub-menu pops up

![Select analysis type menu]

The current selection is checked. Highlight a new selection and click on it.
The easiest way of selecting or changing the current analysis type is to select it from the drop-down selection list on the main tool-bar.

The currently selected analysis type is displayed in the second status pane at the bottom of the main Dietplan window. Your selection remains the same until you change it.

8.3 Select and sort nutrients

From the **Tasks** menu, choose *Select nutrients to display*

-or-

Click the select-nutrients button on the toolbar.

Create or recall a list that specifies the nutrients to be shown in every recipe, assessment and menu analysis and the order in which they are displayed. New lists are given a name of your choice and you can have as many lists as you wish.

The dialog contains two scrolling panes.

The left, *Select nutrients from*, pane contains a list of all the available nutrients, grouped logically under their sub-headings. The list includes only the nutrients that
Currently have any values in the database. Previously all known nutrients were included even if they had no values, for example nutrients only used in the USDA table when that table had not been imported.

The right, Selected nutrients in order, pane contains the list of nutrients currently selected, shown in the order in which they will be displayed.

You can highlight one or more nutrients from the left pane that are not already in the selected nutrients list and click Add selection to copy them into the current list on the right. Similarly, you can highlight one or more nutrients in the right pane and click Remove selection to delete them from the current list. You can start with an empty list by using Remove all. To change the order of the selected nutrients in the list, highlight one or more nutrients to be moved and click Shift selection up or Shift selection down. For each click, the highlighted items will move up or down one place relative to the rest of the list.

You can begin with any previously saved nutrient list by selecting it from the drop-down choice box. Dietplan has a number of pre-defined lists, including the nutrients and nutrient order in the published 5th and 6th editions of The Composition of Foods. These are System definitions, as indicated at the foot of the dialog, and cannot be altered, although you can make changes and click the Save as button to create a new list using a different name.

Similarly, if individual user accounts have been set up, any lists created by a system administrator, using the standard nutrient lists dialog on the Admin menu, will appear as Standard definitions which also cannot be changed but, like a system definition, can be copied using Save as. A list that you create or copy and save with a name of your own appears as a User definition and it can be altered and edited as required.

All saved system, standard and user lists appear in the drop-down selection list of the Name of saved list field.

To delete a list, select it, use the Remove all button to clear it and then Save the empty list.

The grouping of the nutrients in the Select nutrients from pane is mainly self-explanatory. The Food labelling group contains nutrient values that are based on the data from The Composition of Foods but are computed in a slightly different way. These comply with the EU requirements for food labelling: Regulation (EU) 1169/2011 of the European Parliament. These values are used automatically when food label data is requested, but they can also be added individually to your nutrient lists in their own right.

The Properties group contains items that are not strictly nutrients, such as edible proportion and specific gravity that come directly from the UK food tables. Others, like served edible proportion and specific gravity, conv. are derived and are user-modifiable values.

Served edible proportion (SEP) is the usable proportion of a food in terms of the actual nutrient values for that food, rather than the food-preparation wastage factor that is sometimes given as the edible proportion (EP). For example, for food MW6 748, green beans, raw, the EP is given as 0.83 but the total nutrient weight per 100 grams is almost 100 grams, so the SEP is calculated as 1.0. However, for UKN 18-211, pork chops with bone, the EP is 0.86 as is the total...
nutrient weight per 100 grams, so the SEP is set the same as the EP. SEP values are used during the computation of **nutrient contribution by weight** graphs.

**Specific gravity, conv** is the value of specific gravity used to convert a quantity to grams if it is input as a **volumetric unit**. Its value can be set by a system administrator using the **add new nutrients to foods** option. If the food is one of the few with a **specific gravity** value in the UK food tables, the specific gravity, conv field is initialised with the same value.

There are two nutrient groups containing fatty acids. The first, **Fatty acids**, contains the fatty acids, using the structure-based nomenclature used in the latest **Fatty acids** supplement (1999). The other, **Undifferentiated fatty acids**, uses the non-structure-based nomenclature first introduced with the **Fish & fish products** supplement (1993) and used until the **Meat & meat products** supplement (1997). Use of fatty acids from the former, more recent group is recommended. They should not be mixed.

Finally, the **Minerals** group has a derived item at the end called **Salt equivalent**, the number of grams of common salt that would be need to supply the quantity of sodium present in the analysis.

### 8.4 Food search methods

Foods and ingredients can be located with food source and reference codes, by name or partial name, by food group or by food category. The same methods can be used in any dialog or selection panel labelled Food search.

The recent 7th edition of *The Composition of Foods* uses sequential food publication codes between 1 and 1180, while the Integrated Data Set uses a selection of unique databank reference codes from the range 11-001 to 50-1188. So the 7th edition foods have both a unique databank reference code and a publication code.

To handle these different coding systems, and to allow the addition of foods from other sources, Dietplan uses two fields to identify each food - a data-source and a food-reference code. The data-source is a three-letter code that is unique to each code set and we use **MW7**, **ID2** and **UKN** to distinguish 7th edition, Integrated Data Set, version 2 and full set of UK databank foods respectively. **RCP**, **USF** and **ADF** are also used to identify recipes and user-added foods. For each data-source any alpha-numeric food-reference codes can be used to identify its foods, provided that the codes are unique within that group.

If you import any of the **additional food tables** each table you import also has a unique data-source code, for example Danone Baby Nutrition (**DBN**) and Tillery Valley Foods (**TVF**).

In Dietplan7, everywhere that a food can be specified, there are fields for both the data-source and the food-reference code. In cases, where you are searching for foods, the data-source is specified as a list of check-boxes via which one or more sources can be searched simultaneously. Your current data-source list is always remembered and will be used on each occasion until it is changed.
After one or more sources have been specified, foods and ingredients can be located by food code, by food group or category, or by specifying words or partial word strings from the food name. The search is performed based on the information that is entered into the Search for field. The field also has a drop-down box that holds a list of the last 16 searches performed, any of which can be selected and repeated if required. You can alter the number of saved searches using the History tab in Edit | Preferences.

Searches are done automatically as data is entered into the Search for field. The search behaviour is modified by the settings of two check boxes in the search dialog, both of which are remembered between searches. If Pre-select foods is ticked, all foods from your selected data sources are pre-loaded into the list of foods when the selection dialog or panel first opens. If you don't want this behaviour or it delays the opening of the dialog for too long, uncheck the box. If Using whole words only is ticked, searching is only done when complete words are entered, otherwise a search is done as each letter is typed. The end of a word is detected by the typing of a space or tab - so you need to put a space, tab or press Enter after the last word in your search entry.

The Composition of Food tables are not consistent in their use of singular and plural names for food items so whenever a singular name is entered, the search also includes the plural version of the name. For example entering potato will find foods containing either potato or potatoes.

To obtain a list of all foods from the selected data sources if they are not pre-selected, enter a single space character (or an asterisk *, which is retained for compatibility with earlier versions).

You can include as many words or partial word strings as you wish in your search. If you want to find foods where a particular word or string is not in the name,
prefix the string with a - (minus sign) e.g. -water to exclude all foods with water anywhere in the name.

Every food has an associated food group and often a sub-group, allocated in *The Composition of Foods*. The simplest way to search for foods by group code, or by a category code that you yourself have assigned, is to use the group and category buttons in the food-search panel to pick the code(s) you want and have them loaded automatically into the search string.

The results of searches are presented in a list, which can be scrolled if there are more matches than can be displayed at once.

When *Using whole words only* is ticked and the search returns more than one food a display window appears after each search operation. This display, dubbed the *word cloud*, contains all the unique words, in alphabetic order, from the foods that were found during the search. As you move the mouse over this display, the word under the cursor is highlighted with a green background with a red background containing a minus (-) sign at the end. A click in the green area will add that word into the search criteria and repeat the search immediately, while a click in the red area repeats the search with that word specifically excluded. This is a way of rapidly homing-in on the food you require, especially if your initial search produces a long list.

Previous versions of the program presented the foods in alphabetical order. The order is now modified by how soon in each food name the search word(s) appear so, for example, if searching for the word *cheese*, *Cheese, Brie* appears before *Cauliflower cheese* which appears before *Aubergine, stuffed with vegetables, cheese topping*. 
To obtain a strict alphabetic listing, click the Name column heading, and again to reverse the sort order. Similarly, you can click the other column headings of the list to sort in the order of that column.

To select a food from the list, highlight it using either the mouse or the cursor up/down keys, and press Enter, or double-click on the required item.

**Search for Recipes, Menus and Registrations**

All other search dialogs now behave in a very similar way to food searching - without the options for specifying data sources, food groups or categories. For each search type, the options to Pre-select items and Using whole words only can be specified and remembered between searches. The ways of including or excluding words and word strings are the same.

**8.5 Add food or ingredient to analysis**

To add a food or ingredient (including a recipe) into any analysis

Click the **Add item** button in the **composition** page of the analysis

-or-

Press **Ctrl** and **F**

-or-

From the **Tasks** menu, select **Add food/ingredient**

This presents a data-entry dialog through which you identify the food or ingredient to be added and the quantity required. The ways of specifying or searching for foods are described under **food search methods**.
When a food has been selected, its data-source code, food-reference code and name will be displayed in the Specify quantity panel. If you want to add the contents of a recipe into the analysis, perform a search as above ensuring that RCP is one of the data-source items that are ticked.

**Food quantity**

Once a food has been selected, you are asked to specify the quantity you require. You can specify the quantity in grams, ounces (Imperial Measure), millilitres, or any other units defined by the system manager by selecting the required units from the drop-down list. The default units of input can be changed using the preferences option.

Any food quantity that is presented can be accepted or modified as you wish. Use the edit keys to alter any value or simply type in the new value over the suggested one. Quantities can be entered from 0.1 gram upwards, with an accuracy of 0.1 gram. Up to 8 significant figures (100 million grams) can be displayed in normal decimal notation and larger quantities use scientific (E format) notation, so there is no practical limit to the quantities and totals that can be handled.
Portion sizes

Many foods have one or more portion sizes defined. If the Portion size choice field is enabled, you can open the drop-down list of portion types and select the one you require. If you wish, you can then select the Number of units field and select the number of portions you require; the default is 1. The amount of food for this size and number of portions is calculated automatically and displayed in the Quantity field.

Nutrient exchange values

You can also express the food quantity in terms of the nutrient exchange value by clicking on Use nutrient exchanges. Choosing this shows a nutrient field with a drop-down list of nutrient names, from which you select one to be calculated. A new field called Exchange value also appears in which to enter the quantity of the nutrient, in the units shown, that is required from the food. The corresponding amount of food is then calculated and displayed in the Quantity field.

Display the composition of food

If you wish to see the nutrient content of the food before adding it, click the View composition button. A pop-up list appears, showing the nutrient content of the specified quantity of the food.

Meal times

If foods are being added into an intake diary assessment and the recording of meal times was specified, a data entry field will appear for this and you will be required to enter a time for each individual meal in the diary. Enter the values for the hours (HH) and minutes (MM) in 24 hour format or use the spinner buttons to set the appropriate values.

Add the food to the analysis

Once the food has been identified, enter the required quantity or select one of the suggested portion sizes and click Add. The food is added into the analysis and the contents of the main analysis window are updated to include the new item.

Alter a food quantity after entry

To alter a food quantity after it has been added, select the food again and enter a quantity that is the difference between the amount in the analysis and the quantity you actually want and click Add or Subtract as appropriate. The quantity in the analysis will then be adjusted by this amount. Subtracting more of a food than is currently present effectively reduces the quantity to zero and the food itself is removed from the analysis.

You can also adjust the food quantity by entering the new quantity that is required and clicking on Replace. The original quantity is overwritten by the new value.

Add a series of foods to the analysis

You can choose the action that is taken after a food has been added. If you tick Repeat this dialog until cancelled at the bottom of the add-foods dialog, the dialog is cleared but remains visible, enabling you to add more foods. This is repeated until you click Cancel in the dialog. If the box is not ticked or the tick is removed, the dialog closes after the food has been added and it is then necessary to re-open the dialog to add another food.
8.6 Add or edit food directly in analysis

The list foods and ingredients that appears in the lower-left window of the composition page for every analysis is drawn on a grid whose elements can actually be entered or edited in situ. This is an alternative way of adding or amending foods and quantities in the analysis instead of using the Add item button.

The range of facilities is more restricted using this method, for example it is not possible to search for foods or ingredients. But if you know exactly which food codes you want to add, or if you just want to alter an existing quantity, you may find this way quicker and more convenient. It is a particularly quick way to remove a food from the list entirely, simply select the Weight cell, type 0 (zero), and press Tab or click another cell. The whole row containing that food will be removed.

To alter an existing grid cell, click on it with the mouse. To begin entering a new food, click on the first empty cell at the foot of the current list. In each case, the cell is an editable field. In the Source column you can enter any valid, three letter data-source. Invalid characters are ignored but if you enter any character(s) that identify a data-source uniquely, the source code will complete automatically, for example you can enter I for ID2 or 7 for MW7. In the RefNo column, enter a valid food code from the data-source you have chosen. On exit from the cell, the food name will appear in the, read-only Food or Ingredient column; otherwise the name remains blank. In the Weight column, enter or edit the numeric quantity you require. Use the Tab key or the mouse to move between cells. The Enter key cannot be used to navigate between cells as it is used as a quick-access key for the Add item button.

When editing a grid row, text is drawn in red during the time that the row contents are incomplete or invalid. On successful completion of the additions or changes, the colour changes to black.

If you want to abandon changes before they are complete, you can:

- Click a cell while holding down Ctrl key to restore the cell to its original value
- Click a row while holding down Shift key to restore whole row to its original values
- Click anywhere while holding down Alt key to restore contents of all red cells to their original values

8.7 Cut and paste foods and ingredients

The list of foods and ingredients that appears in the lower-left window of the composition page for every analysis is drawn on a grid whose elements can be highlighted and then copied or cut and pasted into any other food list.

To avoid activating the grid-cell editing functions when using the Shift and Ctrl keys, click on the food name column while making your selections.

**To highlight rows to be copied or moved**

For adjacent rows, either hold down the left mouse button while over the first row and drag the mouse down to the last row, then release the button or hold down the Shift key and click on the first and the last rows.
For non-adjacent rows, or to add individual rows to or remove them from an existing selection, hold down the **Ctrl** key and click on the required row, repeating as necessary.

**To highlight all the rows**
From the **Edit** menu choose *Select all* or press **Ctrl** and **A** together

**To copy your selection**
From the **Edit** menu, select *Copy* or press **Ctrl** and **C** together.

**To move (cut) your selection**
From the **Edit** menu, select *Cut* or press **Ctrl** and **X** together.

**To delete your selection**
From the **Edit** menu, select *Delete* or press **Ctrl** and **Delete** together.

**To paste your selection**
You can copy or move your selection to any other open analysis or into any other menu group or assessment diary page in the same analysis. Select the receiving analysis using the tabs along the bottom of the main workbook. If this analysis has more than one section, i.e. there is a **Navigate** tab in the top-right window, select the required (Day, Meal, Course) group so it is displayed. Then, from the **Edit** menu select *Paste* or press **Ctrl** and **V** together.

**8.8 Add notes and comments**
Click the **Comment** button in the analysis **Composition** page

- or -

Click the **Comment** tab in the analysis **Composition** page

- or -

Press **Ctrl** and **R**

- or -

From the **Tasks** menu, select *Add remark/comment*

Select this option if you want to add free text to your analysis.
Type your text directly into the comment-tabbed window. It will automatically word wrap at the end of each line, but you can press Enter at any time to start a new line.

Use the mouse or cursor keys to position the cursor over any existing text and insert more text or use the delete or backspace keys to correct errors. You can use the Copy (Ctrl+C), Cut (Ctrl+X) and Paste (Ctrl+V) keys to insert, delete or move blocks of highlighted text.

If the entry window becomes full it will scroll down automatically to allow more text to be entered without limit.

You can choose to include this text with your analysis when you create a report.

**8.9 Navigating analysis groups**

Some types of analysis, that is, menus and intake diary assessments, require you to divide the analysis into a specified number of days, meals, courses and choices of dishes. These are referred to as analysis groups and the foods intended for, or consumed in each individual group are entered and stored separately within each group.

In the main analysis window, the current group is always shown, at the top of the window shown on the Summary tab as the Day, Meal, Course and, where applicable, Choice number. Only those items appropriate to the current analysis are shown. So, for example, if you have not chosen to divide your analysis into individual courses, the Course field will not be shown. The current group is also shown highlighted in the window on the Navigate tab.

When entering or reviewing the contents of an analysis in the main window, you need to be able to navigate, or move, between analysis groups. In addition to the individual methods detailed below, you can always use the tree in the Navigate window to click on the group node you require, which selects it immediately. If the
destination group is not showing, it may be necessary to expand the view by clicking on + where the branch is collapsed.

**To move or return to the first analysis group in the sequence:**
Press Ctrl and Cursor-Up
-or-
In the Tasks menu, select *First group*

**To move to the next group in sequence:**
Click the Next> button on the composition page of the analysis
-or-
Press Ctrl and Cursor-right
-or-
In the Tasks menu, select *Next group*

**To move to the previous group in sequence:**
Click the Prev button in the main analysis window
-or-
Press Ctrl and Cursor-left
-or-
In the Tasks menu, select *Previous group*

**To move to a specific group**
Press Ctrl and G
-or-
In the Tasks menu, select *Go to group*

Then select the group you require by entering the appropriate numbers or clicking the up or down arrows on the spinner.

Click **OK** to go to the selected group. Both the main analysis window and the navigation tree view will be updated with this group.
8.10 Naming analysis groups

When first created, analysis groups have the default names Day 1, Day 2, ... and Meal 1, Meal 2... etc. but you can change these names for each individual analysis. You can use any set of names that best suits, for example, a school meals menu could be given day groupings of Week 1 Monday, Week 1 Tuesday etc. Each day, meal, course and choice group can be named as you wish.

To change any name, from the Tasks menu, select Edit group names

In the Select type radio box, select which group name you wish to alter - Day names, Meal names etc. Only the groups that have been set up can be named.

Then, in the grid, enter or amend each of the names in that group and repeat for each type of group as required.

All the names you define will be saved along with the analysis and will remain associated with that individual analysis until you change them. The navigation tree view in the main analysis window will be updated to use the names you have entered.

To review the complete set of names, from the Tasks menu, select Review group names.
8.11 Using dietary reference values

Dietary reference values are set up in the **Selection** page of each analysis notebook.

Click the button labelled **Add** or **Amend** in the panel labelled **Target DRV (recipes)**, **Nutritional guidelines (menus)**, or **Dietary reference values (assessments)**.

-or-

From the **Tasks** menu, select **Dietary reference values**
This dialog allows you to select one of the sets of Dietary reference values recommended by COMA (1991) and SACN (2011), namely, Reference Nutrient Intake, Estimated Average Requirement or Lower Reference Nutrient Intake. Your can also give values to the various parameters that affect the DRVs.

If you are specifying DRVs for a particular individual, their age and sex from the personal details entered earlier are displayed but cannot be altered here. Age is computed from the date of birth to the date of the current assessment.

If you are doing a recipe or menu analysis, that is not associated with any particular individual, you can, if you wish, provide a set of "target" DRVs by specifying an appropriate age and sex.

There are fields in the dialog where you can specify the person's activity level and state of pregnancy or lactation. These are disabled where the person's age or sex is not appropriate. They are multiple-choice fields, click the drop-down box to select the one you require. It is not essential to choose activity levels, but doing so will produce a closer estimate of energy requirements.

You can choose whether the target energy requirements should be met from food alone or from food plus alcohol. You can also decide whether to take the target protein intake as the DRV, which is a fixed quantity, or to use 15% of the energy DRV that protein provides to the population as a whole.

The value for carbohydrate can be chosen either as the one that provides the recommended percentage contribution to energy, or as the one that will provide the balance of the energy requirement that is not supplied from other sources.
When you click **OK**, the specified set of DRVs are calculated and these will appear alongside each constituent nutrient in displays and in reports. The current settings are stored when the analysis is saved.

The only type of DRV defined by COMA for carbohydrate, fats and energy are Estimated Average Requirements (EAR) so these are always used irrespective of your choice of DRV type for the other nutrients. If RNI or LRNI values have been selected, an asterisk indicates any values that are EAR.

### 8.12 Guidelines for school meals

For menus only, instead of setting dietary reference values, you can also select the Nutritional Standards & Requirements for School food 2007 (NSRS).

Select **NSRS** in the *Nutrition standard* selection box on the **Selection** page of a menu and click the button labelled **Add** or **Amend**

![Nutritional Standards & Requirements for School Food - 2007](image)

The type of school can be specified in terms of pupil gender and age range. Select the appropriate settings from the drop-down list in each case.

Unlike dietary reference values, the school meal guidelines often recommend minimum or, in some cases, maximum nutrient levels. These are shown on screen and in reports using the > (greater than) and < (less than) symbols, for example > 65.2 g CHO or < 6.0 g saturated fats.

### 8.13 Data export

The contents of any analysis can be written to an export file in a standard, comma-separated variable (csv) format that can be imported into other spreadsheet and statistical analysis software.

To initiate the export of data from an open analysis, click the **Export** button on the **Grid** page of the analysis notebook.
To select one or more sets of data to be exported:

From the File menu, select Export to spreadsheet

-or-

From the toolbar, click on the Export button

-or-

Press Ctrl and E

You can search for and select analyses of the currently selected type, that is, recipes, menus or assessments.

Enter your search criteria into the Search for field in exactly the same way as when you locate an analysis to open it.

The matching items are listed and you can select one or more to be exported.

To select a block of adjacent items, hold down the Shift key and click on the first and last items in the group. The whole block will be highlighted. To add non-adjacent items, or to remove an item from the selection, hold down the Ctrl key and click on the required item.

Use the Choose export method radio-box to export summaries of your selected items into a single file or to export details of each selected item into a single file or to separate files.

When you click the Export button, you can choose or confirm the output file name if there is a single file, or select/confirm the destination directory for multi-file creation. By default, each file name will be the corresponding recipe, menu or

89
registration code and have the extension .csv. Spreadsheet programs like Open Office Calc, Microsoft Excel and Corel Quattro-Pro can recognise and import .csv files automatically so the file extension should not be changed. By default the files are saved in the csvexports folder of your Dietplan7 work area, but you can change the folder using the Preferences option.

By default, fields containing nutrient values are formatted as when they appear on the corresponding Composition page of each analysis. That is, zero values show as Nil, missing values as --- and other values may be non-numeric or have a non-numeric suffix. If you require that only numeric nutrient values are exported, select Exported nutrients to contain only numeric values in the Spreadsheet export tab of Edit | Preferences.

8.14 Data import

Dietplan has a data import module that can be used to import recipes and menus from other software such as catering packages. Although it is completely general purpose in design, the module needs to be tailored to the specific formats of the data being exported by the catering software provider.

This has been done for providers of software, such as Manna (Oracle UK) and Menumark (Datasym) and the import module is enabled in the Dietplan software licences of their customers. The import module is disabled by default, but if you have a requirement for importing recipes or menus from any source, please discuss this with Forestfield Software.

Once enabled, importing data is completely automatic. Data files are placed into a pre-agreed directory and Dietplan looks there for any waiting files whenever it is run by a user with appropriate privileges. The file contents are validated before any action is taken and are only processed if they are error free. An acknowledgment file is created for each data import file that contains details of all actions, errors and queries.

When the data import module is active, you can select View imported files from the File menu to view or edit the most recent data and acknowledgment files or to select and view any other file in the import folder.

8.15 Category coding

8.15.1 Category coding

This is an optional but a powerful feature of Dietplan for declaring and defining dietary categories and then assigning them to individual analyses and/or to foods and ingredients.

For example, you could define a category of Vegetarian and start a new analysis, say a recipe, and declare it to be vegetarian. Then as foods and ingredients or other recipes are added, any items that were not themselves vegetarian would raise a warning. The whole purpose of category coding is to help to ensure that the recipes, menus or assessments you are working on comply with any criteria you have set for them.

While some categories can be defined and computed from the nutrient values held in the database, such as Low fat or High energy, using arbitrary threshold values, many if not most categories can only be declared, as they depend on food characteristics about which no quantitative information is available. Examples of such declarations are vegan, halal, nut-free, no added colouring etc. Ideally, every
food in the database needs to be flagged whether or not it complies with each of the declarations. It soon becomes apparent that, not only does there need to be common agreement on the exact interpretation of a declaration, but also much work is necessary to achieve the tagging of each food. The implementation of category definitions in Dietplan, so far, acknowledges this, and the facilities provided may still be useful in conditions that are not ideal.

A number of predefined categories have been included with the installed version of Dietplan, mainly as examples of how they appear and work. The intention is for you to define and set up categories yourself, as you need them. You can delete all the existing examples if you wish; from the Admin menu, choose Food categories, then Delete all category definitions. The exceptions are the FVN and DFVN - [Dried] Fruit, Vegetables & Nuts - categories that are needed for the Nutrient Profiling Model for recipes.

The initial declaration and setting up of category definitions requires system administration rights, which give you access to the Admin menu.

The first stage is the allocation of a name, a (mnemonic) code and a type to each new category. A category can be one of three types: Computed, Declared or Private. A computed category also requires a definition of the logical rules of the underlying computation. From the Admin menu, choose Food categories, then Define dietary categories - see next section.

In the second stage, declared and private category types require some or all of the foods in the database to be tagged as being included in, or specifically excluded from the category. From Admin | Food categories, select Foods in a specified category or Categories for a specific food. See Add categories to foods.

The third and final stage is to place an analysis into one or more of the defined categories. From the Tasks menu, select Dietary categories. See Add categories to analysis.

8.15.2 Define dietary categories

From the Admin menu, choose Food categories, then Define dietary categories

Decide on a descriptive name for each new category, together with a brief and unique code. There is no restriction on the format or length of the code. Its purpose is to act as an abbreviation for the full name, so a mnemonic or acronym would be helpful but a long code would be self-defeating. Each category is also given a type, one of Computed, Declared or Private.
The **Code** and **Category name** columns of the entry grid contain editable fields where the values can be entered directly. On entry to the **Type** field, a drop-down selection list is available to select the appropriate type.

**Declared** and **Private** types are very similar, in that they both require foods in the database to be tagged as being included in or excluded from that category. Both types appear in the list called up by the **Category codes** button on the **Search foods** panel, which means that either type can be used to list all the foods in that category. However, recipes, menus and assessments can only be given categories that are **Declared** (or **Computed**) types. So while a **Declared** category needs to be something that is meaningful in which to put, say, a recipe, a **Private** category can contain any arbitrary set of foods you like. You can use it, for example to contain all high-energy food supplements so that they are all listed when you do a food search on that category, or you could use it just to group together, and return a list of all your favourite deserts.

When you have defined a **Computed** category, the **Define rule** button is enabled whenever any of the cells in that row are in focus (highlighted with a thicker blue box). Click this to continue and define the computing rules.
Each rule is a series of statements of the form:

**Item Relation Value Join**

For example:

Fat less than 15 AND
Sat.fats less than 5

**Item** is the name of a nutrient, selected from the drop-down list that appears when a cell in the column is activated. **Relation** can have the value *less than*, *equal to* or *greater than*, again selected from a drop-down list.

**Value** is a numeric or symbolic value that is typed into the editable grid cell.

**Join** can have the value *AND* or *OR* or *<blank>* selected from a drop-down list.

If there is more than one statement line, the **Join** operator shows how they are to be combined logically. The item on the last line is always blank.

**Value** can be a simple number that is calculated as an absolute value e.g. *fat less than 50* (grams - per portion), or it can be followed by *%* e.g. *fat less than 5%* (percentage weight). It can also be entered in the form \( Vxxx \) where \( V \) is the letter 'V' and xxx is zero or more letters and/or numbers, used only for identification. In this last case, the actual numeric (or percentage) value is entered and saved when an analysis is put into this category. So a recipe that is a main dish, for example, can be given a value for, say, *calories less than* that is different from a recipe that is a dessert. In other words, each analysis can hold its own, independent values for the same category definition.
The effect of the rule is that it must calculate out to be **True** for the analysis to which it is being applied, in order for the category itself to be declared true for that analysis.

There is no restriction on the number of statement lines in the rule definition. To assist in editing the rule you can use any of the **Clear**, **Insert row** or **Delete row** buttons.

### 8.15.3 Add categories to foods

You can either pick a single category then add foods into it, or you can choose a single food then select the categories it belongs to.

From the **Admin** menu, choose **Food categories**, then **Add foods into a category**

![Image of food category selection](image)

In the panel labelled **Select food source(s) and category** you can tick all the food data sources to be categorised. Sources **MW5**, **MW6**, **IDS** and **FAT** do not appear because they are only aliases pointing to their real identities in **UKN**. Choose the category into which you are going to add foods from the drop-down list of **Declared** and **Private** categories.

You do not need to flag every single food as being included in or excluded from a category. Each food can be in one of three states: **Included**, **Excluded** or **Unknown**. When a category is first defined, all the foods are, by default, in the **Unknown** state. Later, you can decide whether or not to raise a warning when unknown-state foods are added into an analysis with this category. In the **Specify foods** radio-box, select either **to be included** or **to be excluded**. You can have a mixture of both types saved for any category. Then, in the **Display foods** radio-box, select to have the foods displayed by food group, by name or by reference code. Displaying foods by group as in the example above, can make it easier in some cases to select a whole group or sub-group at a time by ticking the box further up...
the hierarchy, which automatically selects all the items below. For example, in the illustration, all the foods in the groups Fruit, Herbs & spices, Nuts & seeds and Vegetables are all being included into the Vegetarian category by ticking each of the groups. Another example would be to excluded all Milk and milk products from the Lactose-free category.

Whichever method you use to display them, proceed through the tree of foods and tick each group or individual food to be included/excluded for this category as appropriate.

Click **Save** to update all the foods in the database with your selections.

To add the categories for a specific food, from the **Admin** menu, choose **Food categories**, then **Add categories to a food**.

With this option, select a specific food and, from the list of all the declared and private categories, tick the corresponding box to explicitly include or exclude the food, or leave both boxes blank to put the food into the unknown-state for that category. Click **Save** to update the database with your choices.

Note that in both the above methods, it is not meaningful to **exclude** any food from a Private category, as this type of category is only ever used to produce a list of included items during a food search.

### 8.15.4 Add categories to an analysis

Categories can be added to an analysis in the **Selection** page of the analysis notebook.

Click the button labelled **Set up** or **Amend** in the panel labelled **Food** (or **Recipe**) categories.
From the Tasks menu, select Dietary categories

A multiple-selection list of all the Computed and Declared categories allows you to select the one(s) that apply to this analysis. When a Computed category is highlighted, the Show rules button is active, and clicking it will display the definition. If the definition contains any values that are specific to the analysis, then if the category is selected another dialog appears in which the analysis-specific value can be entered.
In the example above, the value of the amount of fat was set as \( V_{xx} \) when the rule was defined, meaning that the actual level is different for each individual analysis. So it is necessary now to enter the value for this specific one.

Enter values into all fields that are not read-only, that is, with a white background. **Value** can be a simple number that is calculated as an absolute value e.g. fat less than 3 (grams - per portion), or it can be followed by \% e.g. fat less than 3\% (percentage weight).

Click **OK** when all required values have been supplied. These are saved with the individual analysis and are used to compute the state of the category whenever it is needed.

You can set three types of warning to inform you, as you add foods and ingredients to the analysis, when category codes are not compliant. It is possible to set more than one type of warning.

- Warn if adding the food will make the analysis fail a computed category, such as Low-calorie
- Warn if a food is added that is explicitly excluded from a declared category.
- Warn if the category of the added food is unknown.

The effect of the last item is to permit only those foods that have been explicitly included in the category. You may not wish to set this warning level unless you have gone through the whole database and included all the qualifying foods.

Note that setting the warnings will apply to **all** analyses that have had categories set. Your selections of warnings are stored and remain current until you change them, by re-opening this dialog from within any analysis. There is an option in your **preferences** to apply these warnings, or not, whenever an analysis is recalled from the database and first opened.
9. Views

9.1 Reports

9.1.1 Create report

Dietplan7 produces reports in portable document format (PDF), that can be both printed and saved, and the saved versions can be viewed using freely-available tools like Adobe Reader. Although the contents of PDF files can be altered using specialised software, they are much more secure from casual or inadvertent alteration than if saved in a proprietary word-processor format.

Dietplan7 contains its own software for viewing and printing PDF reports. It can also recognise if Adobe Reader is installed (Windows only) and embeds Adobe Reader into the standard report-viewing page of each analysis. All versions of Adobe Reader are supported, from Version 5 through to the most recent, at the time of writing, Version 11. The most recent version is always recommended and there is a copy that can be installed from the Dietplan7 distribution CD if you have permission to do so. You can switch between using Adobe Reader and the internal viewer using the Preferences option on the Edit menu.

Every analysis notebook has a Report page as do a number of other types of notebook, such as the Composition of Foods and Recipe Summaries.

To create a report for the current analysis, from the Views menu, select Create report

-or-

Click the Report button on the Composition page of the analysis

-or-

Click on the Report page tab of the analysis notebook
Above is an example report using the Dietplan internal viewer. Like Adobe Reader, the whole report can be viewed in a single scrolling window and there is a toolbar at the top of the window that performs a similar range of functions. From left to right, these are: Print, Save, First page, Previous page, Next page, Last page, Display/Enter page number in page range, Zoom out, Zoom in, Select zoom value, Fit page to width and Fit page to height.

If you change your choice of viewer via Preferences, reports already opened are not affected by the change but all reports created subsequently will be displayed using your chosen viewer.
Above is an example of a report in Dietplan7 using Adobe Reader. You can navigate the pages and choose the magnification in a similar way to the internal viewer using the built-in toolbar.

Outside the scrolled viewing window, the controls are common to both viewers. Use the Design button to open a report-definition dialog where you can set up a new, or recall an existing report definition.

**To save the contents of the report to a file:**

Click the Save button on the Report page

- or -

From the File menu, select Save

- or -

From the Dietplan or the viewer toolbar, click on the Save button

- or -

Press Ctrl and S

You can choose or confirm the output file name and folder. By default, the file name will be the corresponding recipe, menu or registration code and have the extension .pdf. External viewers recognise and import .pdf files automatically, so the file extension should not be changed. By default the files are saved in the reports folder of your Dietplan7 work area, but you can change the folder using the Preferences option.
There is also a radio box where you can choose to save reports and graphics in Libre/Open Office (.odt) format. Libre Office and Open Office are free software packages very similar to pre-2007 editions of Microsoft Office. So, if reports are saved in this format, you can use Libre Office to load and customise them in the same way as any other word-processor document. Libre Office can then save documents in Microsoft Office (.doc) format and more recent versions of Microsoft Office can read Libre Office (.odt) format documents directly.

**To print the contents of the report:**

Click the **Print** button on the **Report** page

- or -

From the **File** menu, select **Print**

- or -

From the Dietplan or the viewer toolbar, click on the Print button

- or -

Press **Ctrl** and **P**

Using either viewer, a printer dialog appears, from which you can choose the destination printer, the number of copies, and the range of pages you would like printed. The dialog that appears depends on the version of Windows you are running.

The **Refresh** button is now obsolete. It was needed in earlier versions of Dietplan because changes made to an analysis did not automatically update a report that was already open. Such changes now do so, but the button has been retained for the time being.

To return to the composition page of the analysis notebook, from the report page, click **Back**.

**9.1.2 Define report content**

The appearance and content of your reports can be defined and saved. You can save as many different definitions as you like and recall and use them as required.

From the **Views** menu, select **Define report**

- or -

Click on the **Design** button on the **Report** page of the notebook

- or -

Press **Ctrl** and **D**
There is one pre-defined report definition, called Default. This shows as a System definition in the lower left corner of the dialog, indicating that it cannot be changed, although you can save alterations under a different name using the Save as button.

Similarly, if individual user accounts have been set up, any definitions created by a system administrator, using the Define standard reports dialog on the Admin menu, will appear as Standard definitions which also cannot be changed but, like a system definition, can be copied using Save as. A definition that you create or copy and save with a name of your own appears as a User definition and it can be altered and edited as required.

All saved system, standard and user definitions appear in the drop-down selection list of the Name of saved definition field.

The left-hand panel of the dialog contains a tree of items that can be selected and defined. Highlighting an item brings up an associated set of fields in the right-hand panel that you can set up and alter, as required. In the example above, the Page numbers item is selected, and you can specify the format and location of the page numbering, and associated elements, in your report.

The selection tree is has three main branches. The Layout branch contains items that affect the format and appearance of the report. The Content branch lets you select the items to be included in the report and the details of their appearance. The Aggregation branch is only enabled for reports that contain analysis groups, that is, menus and intake diary assessments. When active, you can select which days, meals and courses are to be reported and how they are to be combined. See: Selecting analysis groups. As the selections you can make in the aggregation branch depend on the structure of each individual analysis, they are not saved in the report definition but must be altered from the default selections as required; the selections you make are remembered for as long as the analysis is open.
The **Content** branch of the tree has a selection box beside each item and, when the box is ticked, that item will be included in the report. The first two items, **Titles** and **Details** are permanently ticked, but when you highlight either, you can choose the details to appear in these report sections.

The first and second lines of the main title come from your Dietplan licence and cannot be changed. But you can use the selection boxes to choose whether or not to include them. You can also specify what sub-title appears for each type of analysis. If made blank, no sub-title appears for that analysis type.
Each report begins with a section containing the identifying details of the analysis together with other parameters. Each detail can be selected for inclusion, or can be omitted, by making the appropriate selections in the Details panel. Not every detail is applicable to all types of analysis and, if selected, will be ignored where they do not apply.

Each of the other sections of the report can be selected or omitted as required. As each section is highlighted, the right-hand panel shows any variables that can be set or selected within the section. For example, if you include a table of the foods and ingredients in the analysis, you can specify how the list is sorted, and whether or not ingredient quantities are to be revealed.
Each of the graphs, which can also be viewed independently, can also be selected for inclusion in the report.

The details of how to set up each type of graph are described in the sections on each individual graph type.
One other item that can be included in the report is a food-labelling section. This produces information in the format and using the nutrient and energy conversion factors specified in the EU regulations. The selection check-box for food labelling is only enabled when the current analysis is a recipe.

You can choose to show just the mandatory items or include the optional macro nutrients together with a list of vitamins and minerals that have values greater than 15% of the N.R.V. You can also show the vitamins and minerals that have less than the significant 15% value.

Click the **Save** button to store changes to any User definition. To save the changes to any definition under a new name, leaving the contents of the original intact, click **Save as** and supply a new name when requested.

### 9.1.3 Selecting analysis groups

Some types of analysis, that is, menus and intake diary assessments, require you to divide the analysis into a specified number of days, meals, courses and choices of dishes. These are referred to as analysis groups and the foods intended for, or consumed in each individual group are entered and stored separately within each group.

When you create a report or a graph in an analysis containing groups, the **Aggregation** branch of the selection tree in the report or the graph definition dialog is active and the group types that have been defined can be highlighted. A selection dialog corresponding to the highlighted group is displayed in the right-hand panel.
For each active level of grouping, you can specify the range to be included and whether individual members of the group are to be presented Individually or Aggregated. For example, you could choose to report Days 2 through to 4 individually, and to aggregate all the meals each day, which would produce the separate nutrient intake for each of those days.

In the hierarchy of days, meals, courses and choices, if you choose to aggregate at a particular level then all the groups below that level are also, automatically, aggregated. For example, if you aggregate all the meals over a day, it is not then possible to report the courses or choices individually within each meal.

In a menu analysis, if menu choices are permitted, two additional items are enabled in the aggregation branch: menu choices and menu servings. These are the same functions that are accessible through the Tasks menu, but they are also available here at the point of report or graph creation.

There are more reporting options in the Choice range selection group than in the day, meal or course ranges.

In addition to being able to report the choices individually or aggregated, you can report served proportions or selected choices, provided that the relevant servings or choices have been entered.

9.1.4 View saved report

After you have saved a Dietplan7 report as a PDF file, as well as being able to view the report using programs like Adobe Reader, either stand-alone or from inside your web-browser, you can also view it from within Dietplan itself.

From the Views menu, select View saved report

Choose the report from the Open file menu that appears, by default this shows the files in the reports folder of your Dietplan7 storage area, or the folder you
have chosen for saving reports by using the preferences option; but you can navigate to any other folder you wish.

Once selected, the report is opened in its own single-page notebook, using your preferred report viewer.

9.2 Graphs

9.2.1 Show graphs
Dietplan7 produces a number of types of graph that can be viewed on screen and, optionally, both printed and saved. The saved graphs can be viewed using your web-browser. You can also choose the same graphs for inclusion in a Dietplan report.

The content and appearance of your graphs can be defined and saved using a graph-definition dialog. You can save as many different definitions as you like and recall and use them as required.

Every analysis notebook has a Graph page, as do other types of notebook, such as the Composition of Foods.

Four types of graph are available:

Nutrient weight profile
Nutrient energy profile
Nutrient sources
Compliance with DRVs

To create a graph for the current analysis:

From the Views menu, select Show graphs then select the graph type you require from the sub-menu.

-or-

Click the Graph button on the Composition notebook page of the analysis

-or-

Click on the Graph page tab of the analysis notebook

In the last two cases, the most recently selected graph type will be created immediately. Select a different type from the radio-box on the graph notebook page.
If the graph extends over more than one screen page, use the set of buttons to select the first, previous, next and last screens. Use the **Design** button to open a graph-definition dialog where you can select and save the appearance and content of the different graph types.

The **Refresh** button is now obsolete. It was needed in earlier versions of Dietplan because changes made to an analysis were not automatically reflected in a graph that was already open. Such changes now update the graph automatically, but the button has been retained for the time being.

To save a graph to a file:

Click the **Save** button on the **Graph** page

- or -

From the **File** menu, select **Save**

- or -

From the toolbar, click on the Save button 

- or -

Press **Ctrl** and **S**

You can choose or confirm the output file name and folder. The graph will be saved in portable network graphics format, and by default, the file name will be the corresponding recipe, menu or registration code and have the extension **.png**. Web browsers and picture viewers recognise and display **.png** files automatically, so the file extension should not be changed. By default the files are saved in the
To print the graph:

Click the **Print** button on the **Graph** page

-or-

From the **File** menu, select **Print**

-or-

From the toolbar, click on the Print button

-or-

Press **Ctrl** and **P**

The displayed graph is converted into PDF format and printed. At the moment it simply formats the graph to fill a complete A4 page and is preceded by a printer-selection dialog.

### 9.2.2 Define graphs

The appearance and content of your graphs can be defined and saved. You can save as many different definitions as you like and recall and use them as required.

From the **Views** menu, select **Define graphs**

-or-

Click on the **Design** button on the **Graph** page of the notebook

There is one pre-defined report definition built into Dietplan, called **Default**. This shows as a **System definition** in the lower left corner of the dialog, indicating that it cannot be changed, although you can save alterations under a different name using the **Save as** button.

Similarly, if user accounts have been set up, any definitions created by a system administrator, using the **Define standard graphs** dialog on the **Admin** menu, will appear as **Standard definitions** which also cannot be changed but, like a system definition, can be copied using **Save as**. A definition that you create or copy and save with a name of your own appears as a **User definition** and it can be altered and edited as required.

All saved system, standard and user definitions appear in the drop-down selection list of the **Name of saved definition** field.

The left-hand panel of the dialog contains a tree of items that can be selected and defined. Highlighting an item brings up an associated set of fields in the right-hand panel that you can set up and alter, as you require.

The selection tree is divided into three main branches. The **Appearance** branch contains items that affect the format and appearance of the graphs. Currently the only items in this branch allow the background colour of each type of graph to be individually changed from its default sky-blue to white - potentially saving ink if the graph is printed. The **Content** branch lets you select the items to be included in the report and the details of their appearance. The **Aggregation** branch is only enabled for items that contain **analysis groups**, that is, menus and **intake diary**
assessments. When active, you can select which days, meals and courses are to be included and how they are to be combined. See: Selecting analysis groups. As the selections made in the aggregation branch depend on the structure of each individual analysis, they are not saved with the graph definition but must be altered from the default selections as required; the selections you make are remembered for as long as the analysis is open.

The Content branch of the tree has a selection box beside each graph type and, when the box is ticked, that type of graph will be created. Only one type can be selected at a time, although the set up details for a graph can be displayed in the right-hand pane and altered without actually selecting the graph itself. The details of how to set up each type of graph are described in the sections on each individual graph type.

Click the Save button to store changes to any User definition. To save the changes to any definition under a new name, leaving the contents of the original intact, click Save as and supply a new name when requested.

9.2.3 Graph nutrient contribution by weight
Shows the contribution to total weight of each of the macro-nutrients: protein, fat, carbohydrate, alcohol, water etc.

You can choose the Graph type to be Bar graph, Histogram or Pie chart. With a pie chart or a histogram, you can choose Display details, and either show just the basic protein, fat, CHO and alcohol or include the details of sugar, starch and the different types of fat.

If your analysis includes information by portion or by day, meal or course, you can set the Quantities reported to either the total or the average value of any of these.

When the subject of the graph has a high water content, it can dominate a bar graph or histogram making it difficult to see the contributions of the other
nutrients. There is also the option to suppress the scaling of any nutrient that is more than \( N \) times higher than any other. You can set the value of \( N \), which has a default value of 4. Setting \( N \) to zero prevents any suppression. The effect of this can be seen below:

The water content is more than 70% compared to the next highest contribution, from sugars, of less than 8%. But because the water is not drawn to scale, the contribution of the other nutrients can be seen clearly.

**9.2.4 Graph energy contributions**

Shows the contribution to total energy from protein, fat, carbohydrate and alcohol using the currently defined set of energy conversion factors.
You can choose the **Graph type** to be **Bar graph**, **Histogram** or **Pie chart**. With a pie chart or a histogram, you can choose **Display details**, and either show just the basic protein, fat, CHO and alcohol or include the details of sugar, starch and the different types of fat.

If your analysis includes information by portion or by day, meal or course, you can set the **Quantities reported** to either the total or the average value of any of these.
9.2.5 Graph sources of a nutrient
Choose any nutrient from your current selection list and produce a graph showing the percentage contribution of each food or group of foods in the analysis to the nutrient total.
You can choose the *Graph type* to be **Bar graph**, **Histogram** or **Pie chart**.

Select the required *Nutrient* from the drop-down list that contains your [current selection of nutrients](#).

Use the *Food group* field to report the percentage nutrient content for each *Individual* food in the analysis, or to group foods together using the three letter *food group* codes used in the UK food tables. You can group the foods at **Level 1**, **Level 2**, or **Level 3** that is, use one, two or three letters of the hierarchical group code. For example, a level 3 group code is **BTQ**, Low fat spreads whereas at level 2 it would be contained in the group **BT**, Butter & related fats while at level 1 it would be part of **B**, Milk & milk products.

The nutrient contributions can be *sorted* in ascending or descending order of quantity, or in order of food/group code or food/group name. You can also specify a lower or an upper *cut-off threshold* as a percentage below / above which foods or groups are omitted from the graph.

If your analysis includes information by portion or by day, meal or course, you can set the *Quantities reported* to either the total or the average value of any of these.

### 9.2.6 Graph actual v recommended intake

For each selected nutrient in the analysis, the graph shows the actual quantity of the nutrient as a percentage of the [dietary reference value](#).

This graph can only be produced if DRVs have been specified for the analysis. If this has not yet been done, from the **Tasks** menu, select **Dietary reference values**. See [Using dietary reference values](#).
Not all nutrients have a dietary reference value, any missing are omitted from the graph.

You can choose the Graph type to be a Bar graph or a Histogram. A pie chart is not possible for this type of graph. Select the required DRV to display from RNI, EAR or LRNI and, if possible, set the Quantities reported to per day. As DRVs are defined as a daily-recommended intake, selecting any other reporting quantity is not meaningful.
9.3 Grids

9.3.1 Show grid

It is possible to produce a grid view of any analysis, which is a spreadsheet-style view showing all the foods (rows) against all the current selected set of nutrients (columns).

From the Views menu, select Spreadsheet grid

-or-

Click the Grid button on the Composition notebook page of the analysis

-or-

Click on the Grid page tab of the analysis notebook
The grid is displayed in a scrolling window on the analysis **grid** page. You can resize or maximise the main Dietplan window to show as much of the grid as possible. The grid itself has a light yellow background, indicating that all the information is read-only.

Click any column-heading to sort the grid in the order of that column. Click again to sort in reverse order.

Click the **Export** button to write the contents of the grid to a comma separated value (csv) file that can be imported by spreadsheet or statistical analysis software. By default, fields containing nutrient values are formatted as when they appear on the corresponding **Composition** page of each analysis. That is, zero values show as **Nil**, missing values as --- and other values may be non-numeric or have a non-numeric suffix. If you require that only numeric nutrient values are exported, select **Exported nutrients to contain only numeric values** in the **Spreadsheet export** tab of **Edit | Preferences**.

The **Print** button can be used to obtain a hard-copy printout of the grid. It is produced in a number of sections and on multiple pages if necessary.

### 9.4 Queries

#### 9.4.1 Create lists

Lists are created by running queries on the Dietplan7 database. The procedure for creating them is similar for each type of list.

From the **Views** menu, select **Lists** and from the sub-menu, choose one of **Foods, Recipes, Menus, Registrations or Assessments**

Select the type of list you require from the items in the chosen sub-menu

For **foods** you can produce lists
The lists in this sub-menu can also be called directly from the main **Foods** menu

For **recipes** and **menus**, you can produce lists

- by name
- by reference code

For **registrations** and **assessments**, you can produce lists

- by surname
- by registration number

Selecting a list of any type opens a notebook containing two pages, labelled **Selection** and **Listing**.

For food lists only, you can select which food sources are to be included; tick the checkbox for each data source that you want to include in the list. By default, all lists will contain the full range of qualifying items but you can use the **Begin with** and **End with** fields to restrict that range by entering starting and/or ending values for the attribute the list is being produced by. If the list is by **reference code**, enter the reference code(s) where the list is to begin and/or end. Similarly if the list is by **name**, enter suitable values for either or both ends. For example **apples** and **pears** will list all the foods with names beginning alphabetically between these two values.
When all your criteria have been entered, click **Continue**. The list will be created and displayed in the **Listing** page of the notebook. You can tab back and forth between the two pages, amending the criteria as necessary.

The list is displayed in a scrolling window and the number of items in the list is displayed below, alongside four action buttons. The list is presented in the requested order, but can be re-ordered on any column by clicking on the title of the column. A second click on the same column label will reverse the sort order.

As data sources **MW5**, **MW6**, **IDS** and **FAT** are sub-sets of the complete **UKN** table, if the list criteria include more than one of these sources, the resulting list will probably contain duplicates.

Click **Save** to bring up a file selection dialog to specify the name of a text file where the list, as seen, will be saved. Click **Print** to send the text of the list to a printer. **Back** will return to the **Selection** page of the notebook, and **Close** will shut the list notebook.

**9.4.2 MW7 publication numbers**

The complete set of foods in the UK nutrient databank is contained in the range of food reference codes between 11-001 and 50-1188. Historically these derived from the 5th edition of *The Composition of Foods* together with all the published supplements. Each supplement was given a prefix, beginning with 11- for *Cereals and Cereal Products*, and ending with 19- for *Meat Products and Dishes*. Adding the prefix 50- to the range of 5th edition food codes completed the set.

In Dietplan, this complete set of UK foods has **UKN** as its data source mnemonic code although, by default, this set is not visible as it contains all the foods ever published, from the 5th edition to date, including all the now obsolete foods. To see the full UKN set, select **Include all archived UK foods** on the **Admin** menu. The
data set ID2 uses the same food codes as UKN but contains only the current set of UK foods.

The foods in the published 7th summary edition of *The Composition of Foods* are all contained in the UKN and ID2 data sets, but they also have a sequential publication number, beginning with 1, in the order they appear in the printed publication. In Dietplan, you can reference foods from the 7th edition, using the publication number, by using the data source code MW7.

To see a cross-reference of the publication codes with the corresponding codes in the UKN/ID2 datasets, from the Views menu, select MW7 publication numbers.

This produces a listing of the selected set of publication numbers inside a scrolling window, together with a count of the number of items in the list. The list is in publication number order, but can be re-ordered on any column by clicking on the title of the column. A second click on the same column label will reverse the sort order.

Click **Save** to bring up a file selection dialog to specify the name of a text file where the list, as seen, will be saved. Click **Print** to send the text of the list to a printer and **Close** to dismiss the list.
10. Data

10.1 Add or Edit USF food
To add a new USF food, from the Data menu, select Add USF food.

or

To edit an existing USF food, from the Data menu, select Edit USF food.

Foods can be added locally into the database and are allocated the data source code USF (user added food). However, if your installation of Dietplan has been configured with individual user accounts, a user with Administrator privileges and access the Admin menu can remove or restrict your access to this option. If the option is removed, and only administrator added ADF foods are permitted, the menu option will be disabled. If access is restricted you will be able to see and use USF foods you have added yourself but not those added by other users. If access is not restricted you can use, and alter, foods added by other users but in the same way they can use and alter foods that you yourself have added.

You can use any food codes you wish within the USF group. It can contain letters, numbers and other punctuation characters and be up to 16 characters long. If you are not concerned about the value of the code you can let the software allocate one for you: leave the Ref code field blank, click Accept and the next available code in the sequence beginning F00001 will be used.

You cannot alter any foods that have data-source codes other than USF but you can make a copy of any food then edit and save it as you wish. To base your USF on an existing food in the database, click Copy from and identify or search for the food you want to use as a model. The nutrient details of this food are copied
into the new food and you can then amend them as you wish. Add or edit the Name of the food and the optional Description and Notes. Use the drop-down list to select a suitable Food group.

The Declared allergens, Portion sizes and Defined nutrients fields will be empty initially or will contain values from the food you have copied. To add or amend values, click the corresponding Edit button.

Each of the 14 allergens can be declared Yes or No or left as --- (not known) via the drop-down selection box beside each one. Click OK when finished to return to the original Selection page.

The page for adding or altering portion sizes is identical to the one used by the food portion sizes option on the Admin menu.
The Nutrients page contains a radio box that switches the nutrient input panel between the set of food-label nutrients (the default), your currently selected nutrient list and all the available nutrients. Via your currently selected nutrient list you can tailor both the number and the order of the nutrients to be input and you can set up and recall different lists by using the Select nutrients button or menu item.

When the food is first created and is not based on an existing food, all its nutrients are initialised to missing value, indicated by three dashes (---). You need only enter values for the nutrients you want, but some simple checking is done to ensure that the values are consistent. Click on or use the cursor Up and Down keys to highlight each required nutrient in turn, and enter the quantity of that nutrient contained in 100 grams of the food in the units shown. If you want to enter the nutrient quantities relative to any quantity other than per 100 grams, enter that quantity in the Input nutrients per ___ grams of food field. The amounts you enter will be converted to the equivalent amounts per 100 grams of food before being saved.

You can add various qualifying codes to the numerical values. Append a d to indicate the nutrient has been computed by a derived or difference method, or append an e if the value is an estimate. Use 0+ to show that traces of a nutrient are present and ++ if it is present in significant but unknown amounts. If a nutrient value is missing or unknown, use a blank or dashes --- to show this. Only enter 0 or 0.0 if the amount of the nutrient really is zero. Click OK when finished to return to the original Selection page.

When all the required allergen, portion and nutrient values have been supplied, click Save on the Selection page. The food is added to or altered in the database and is immediately available for use. If a food is edited that is already being used in any analysis, when that analysis is next opened, a warning will be given that the food has changed. This will recur until the analysis itself is resaved, effectively accepting the change.

To delete an added food, recall it using the Edit USF food option and, from the File menu, select Delete. A warning message will be displayed if the food is being used in any analysis in the database. You can still continue and delete the food but then, when any such analysis is recalled it will warn that one of its ingredients is missing.

You can also delete one or more user-added foods in a single operation using the Delete Dietplan records option on the Admin menu, although in that option, no checks are currently made whether the deleted foods are being used.

10.2 Export database records
From the Data menu, select Export database records.

This performs the same functions as Export Dietplan records on the Admin menu but, unlike that item, which requires System Administrator rights, this one is available to all users.

10.3 Import database records
From the Data menu, select Import database records.

This performs the same functions as Import Dietplan records on the Admin menu but, unlike that item, which requires System Administrator rights, this one is
available to all users. If your assigned privileges do not permit writing to the main, shared database, the records you import will be saved in your private database partition.

10.4 Search analyses for a food item

From the **Data** menu, select *Search analyses for a food item*.

This will search through your saved analyses and report which ones contain the specified food or ingredient. The type of analysis searched is the current selection of recipes, menus or assessments.

Enter the data source and food code of the food or ingredient to be found or click **Browse** to search and select the food by name. If the food also appears with a different food code in another data source, for example it appears in both ID2 and MW7 you can select if all its aliases are to be included in the search. Similarly, the food might have been used in one or more recipes that are subsequently included in menus or food diaries so a preliminary search is done for the food in all recipes - plus recipes that in turn contain those recipes. A list of all such recipes is displayed and you can choose whether they are also to be included in the search. The results of the search are displayed on a separate notebook page when the **Search** button is clicked.
<table>
<thead>
<tr>
<th>Region</th>
<th>Date</th>
<th>Name</th>
<th>Day</th>
<th>Meal</th>
<th>Course</th>
<th>Source</th>
<th>Ref code</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>ODFB</td>
<td>23 Mar 09</td>
<td>Rachael's diet diary</td>
<td>ID2</td>
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<td></td>
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<td>65.00</td>
<td></td>
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<td>Three day diet plan for zhongyi</td>
<td>ID2</td>
<td>13-499</td>
<td></td>
<td></td>
<td>42.00</td>
<td></td>
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<td>Four day diet plan</td>
<td>ID2</td>
<td>15-499</td>
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<td>Caitrin Hobbs Diet Diary</td>
<td>ID2</td>
<td>12-499</td>
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<td></td>
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<td></td>
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<td>09 Mar 09</td>
<td>3 Day Dietary Survey</td>
<td>ID2</td>
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<td></td>
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<td>Gareth's 3 day diary</td>
<td>ID2</td>
<td>15-499</td>
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<td>3 day weight Diary</td>
<td>ID2</td>
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<td>Rebecca Higwood</td>
<td>ID2</td>
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<td>4 days</td>
<td>ID2</td>
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<td></td>
</tr>
<tr>
<td>ODFB</td>
<td>09 Mar 09</td>
<td>Sophy's diet diary</td>
<td>ID2</td>
<td>13-499</td>
<td></td>
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<td>09 Mar 09</td>
<td>Lawson's diet</td>
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<td>13-499</td>
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<td>ID2</td>
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<td>ID2</td>
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</tr>
</tbody>
</table>
11. Other options

11.1 Setting your preferences
From the Edit menu, select Preferences

Many settings can be made that affect the behaviour of Dietplan. Your choices take immediate effect and remain in force until changed. However, unless individual user accounts have been set up, someone else using the program might also change them.

A dialog appears, containing a selection tree on the left and a panel with various selectable fields on the right. The panel changes according to the item currently highlighted in the selection tree. The items on each panel are described below. To record a preference, click on the appropriate item in the selection tree and make your changes to the item(s) in the corresponding panel. Click OK to save your selections and dismiss the dialog.

If you click the Reset button, the fields in all the panels will be set to the default values that were set when Dietplan was first installed and these will be saved as your current preferences when you click OK. This will also reset the saved sizes and positions of your main window and all the pop-up dialogs back to their original, default settings.

11.1.1 Appearance preferences

The only appearance that can be changed at present is the location of the tabs of the main workbook containing all the analyses and activities currently open. By default they appear along the top of the workbook screen area but you can choose to place them along the bottom.
11.1.2 Behaviour preferences

With the publication of McCance & Widdowson’s 7th edition (MW7) and the revised Composition of Foods Integrated Dataset (ID2) these are the only two UK data sources available by default and they only contain the most recent foods. So unless you have chosen to Include all archived UK foods on the Admin menu, the first two preferences are not applicable. If you have included foods from the older data sources, MW5, MW6, IDS and UKN, you can define what happens when you enter one of the older foods into an analysis by setting the Use most recent food code field to Never, Ask first, or Always. Also, if you check the Suppress duplicate foods from lists box, only the most recent version of each food will appear in your food search-lists - there are foods in these older datasets that do not appear in later tables.

If Offer update if old foods found in recipes & menus is selected, when a recipe or menu is opened which contains one or more older foods you are asked if you wish to replace them with the most recent datasource and foodcode. This is in addition to Update foods in analyses on the Admin menu where you can replace old foods in any or all recipes, menus or assessments.

When Show all words found during search is selected, a window displays the unique words from all the foods found during the search. You can click on individual words to include or exclude them and repeat the search.

As a check against errors in data entry, different food groups have been assigned maximum values for the quantities that would reasonably be consumed or contained in a portion. If Check entered quantities against max for food type is selected, a warning is given if a larger quantity is entered.

If Auto-save is ticked then each analysis is automatically saved to the database every time a food or ingredient is added or altered.

When displaying and reporting the values of nutrients, you can choose the units of inorganic minerals to be presented in either metric (milligram) or S.I. (millimol) units.
11.1.3 Information preferences

*Confirm assessment type when creating* can be selected to ask for confirmation of the type of assessment (averaged or diary) being created immediately before the choice becomes irreversible.

If you have set up dietary categories for an analysis, you will receive a warning when you add foods or ingredients that cause the analysis to fail the criteria for any of the categories, although you can ignore the warning and continue. If you would like to be informed, on recalling a saved analysis, that it is failing to comply with one or more of its categories, tick *Display category warnings when analysis opened*.

Similarly, if you would like to know if any of the foods or ingredients in an analysis have been altered since it was last saved - for example, an ingredient might be another recipe that has been changed - tick *Warn if analysis ingredient values have changed* to be informed the next time it is opened.

When you save an analysis into the database, select *Show confirmation after analysis saved* to receive a message that the save has been successful, otherwise the save is performed silently.

11.1.4 Auto-backup on exit

You can use this option to make a complete backup of the Dietplan7 database automatically every time you shut down the program. The backup is made in the form of a compressed Zip file that can be restored using the normal *restore function* on the *Admin* menu.
If you are running Dietplan from a USB flash drive (Dietplan Portable) the default location for the backup is in the folder **Dietplan7-backups** in your Home folder on the hosting computer.

If Dietplan is installed on your local hard drive, you can specify the backup location, which should be anywhere but the local drive, that is, on a removable drive or a USB memory stick.

In both cases you can also specify how many backups are kept before the oldest one is deleted automatically.
11.1.5 Background image

When there are no open notebooks containing analyses or other Dietplan functions, the large right-hand area of the main window is empty. Instead of displaying a blank white space you can use this option to select either an image or a plain colour to show.

If you select *Choose an image file* you can select one of the .jpg files from the folder `/resource/image` in the main Dietplan7 installation folder or you can select any .jpg image file of your own to display.

Alternatively you can *Select a plain colour* and use *Choose* to pick one or you can *Use default image* to display the image file *default.jpg*

11.1.6 Current privileges

If individual user accounts and profiles have been set up by a system administrator for your installation of Dietplan, you can use this function to remove or restore any of your own privileges up to the level originally granted during user registration.
So, for example, if you have permission to save data in the main, shared database, you can turn this off in order to save instead to your own, personal, unshared database area.

11.1.7 Default settings

You can define the default values of certain items using the fields in this panel. The default values are used as the initial values of the items when a new analysis is created. Within each new analysis you can then alter the initial values as you wish.

For example, if you mostly carry out five-day assessments using RNI dietary reference values, you can set the defaults to reflect this. Then, whenever you create a new assessment, the values for these items will already be correct most of the time. In cases where the values do not apply, you can alter the assessment values to suit.

11.1.8 Energy conversion factors
Within the UK nutrient database you can alter the setting of the Value source field to use either the energy values from *The Composition of Foods* or those specified in EU regulation 1169/2011. The differences are in the way protein, carbohydrate and energy values are defined. The individual values themselves are all available separately, so either type, or both, can be selected for inclusion in your analyses, using the **Select nutrients** option. The selection you make here is only to specify which set of conversion factors is used to compute the energy profile.

You can set the **Units for energy profile** to either kiloCalories or kiloJoules. The **conversion factors (Energy per gram)** of protein, fat, carbohydrate, alcohol and fibre can be specified individually. Edit the numeric value you wish to use for each field in turn. The energy profile will be calculated using these factors. Note that if you then alter the settings of either the **Value source** or the **Units for energy profile** fields, the conversion factors will revert to the default values corresponding to those selections, replacing any individual values you have entered.

### 11.1.9 Multiple view

![Dietplan user preferences](image)

Although you can have many analyses open at the same time, they are displayed in different notebook pages and cannot be viewed simultaneously. To assist the comparison of analysis contents, reports, graphs or grids, you can use this option to temporarily display analysis pages side by side or one above the other. Afterwards you can revert to the normal display mode by selecting **View individually**.
11.1.10 Output folders

By default, when you save information into individual files, they are saved in a sub-folder of your Home directory called Dietplan7. Files of different types have their own sub-folders called reports, graphs, csvexports and textfiles. If individual user accounts have been created, it is possible that your local system manager has set up different locations, which you will see in the Preferences dialog.

You can use the fields in this panel to specify or browse for alternative locations to save these files. You can keep the file types separate or direct them all into a common folder. You can specify or create these anywhere on your system where you have access.

11.1.11 Report viewer

The PDF files used to create reports can be previewed using the built-in PDF viewer. If you have the free Adobe Reader installed on your computer (Windows only), you can use this panel to choose which of the two viewers to use.
11.1.12 Retained history

You can quickly recall any of the analyses that you have used recently by selecting them from the *Most recently used* list of items at the end of the main *File* menu. The default number of items is 5 but you can change this to any number between 1 and 16.

Similarly, when searching for foods, the criteria you have used in the most recent searches can be recalled from a drop-down list. The default number of items is 16 but you can change this to any number between 1 and 32.

You can also use the **Delete current history** button to remove the current contents of both the above lists.

11.1.13 Salt equivalent

When salt equivalent is selected as a nutrient for display and no value has been explicitly provided, it is calculated from the actual sodium (Na) content using a
conversion factor based on the ratio of the molecular weights of sodium chloride and sodium. This factor is 2.5445 and is the value used by default in Dietplan.

Some prefer to accept a simpler conversion and use the value of 2.5. You can use this option to set your own preferred conversion factor and any value between 2.4 and 2.6 will be accepted.

11.1.14 Spreadsheet export

Select the first option if you require the exported nutrient values to contain only numeric values with no associated text.

The remainder provide various options for repeating certain fields in each row that is output.

11.1.15 Update Checking

In addition to explicitly checking for available updates to Dietplan using Check for updates on the Help menu, you can set up an automatic check when Dietplan
starts running. The default setting is *Never* but you can also choose *Daily*, *Weekly*, or *Monthly* checks.

If an update is found you are informed and have the choice of installing or deferring the update.

### 11.2 User feedback

From the **Help** menu, select *Submit problem or query*

This option enables you to supply details of any problem, query or suggestion about any aspect of Dietplan7 and its operation. The dialog already contains some basic information about your own copy of Dietplan. You are asked to enter your own name and contact details.

If you are creating the report as a result of an error while running the program, details of the location and cause will have appeared in a pop-up window entitled **Dietplan7 messages and errors**. If you create this report while that window is still in view, the contents of the window, describing the error, will be inserted automatically into the report.
Enter any text you wish in the space indicated. You can use the cursor keys to
move around the form and the usual edit keys to make corrections. When you
reach the bottom of the space on screen, the window will scroll to allow you to
continue typing.

Click **Send via email** to transmit the contents directly to Forestfield Software.
Alternatively, use **Copy to clipboard** to make a copy of the contents that can be
pasted into any other document or file you wish, or **Print hard copy** to produce a
copy for your records or to fax or post to the address in the report heading.
12. System Administration

12.1 Import food tables

From the Admin menu, select Import food tables

In addition to the set of UK food tables (McCance & Widdowson) that was licenced with the purchase of your copy of Dietplan7, you can also import food tables from other sources. These are not loaded into your main database by default but can be selected and imported from special database files that contains them. The additional food tables contain food and product data from the following sources:

**UK supplier product tables**

- ABT Abbott Nutrition *
- BKS Brakes *
- DBN Danone Baby Nutrition
- FRS Fresenius Kabi Ltd *
- MJN Mead Johnson Nutrition *
- NCC Nutricia Advanced Medical Nutrition *
- NES Nestlé Health Science *
- PSC Pepsico International *
- SAF South Asian cooked foods
- TVF Tillery Valley Foods *

**Other national food tables**

- FLV USDA Flavonoid data *
- IFL USDA Isoflavone data
- IRL Irish Food Composition Database *
- N10 Australia/New Zealand NUTTAB 2010
- USD U.S.Dept of Agriculture SR 27 2014 *

* Updated in Dietplan7

The 3-letter code that precedes each item is the data-source code that is used to access that food table after it has been imported.

The best way to obtain the tables is via the web, which ensures that you receive the latest versions of the tables. They are also available on the most recent Dietplan7 installation/upgrade CD that you have, but they will be the versions that were available at the time the CD was created.
Select either **Web download** or **Local (CD) file**. From the web you can choose either **UK supplier product tables** or **Other national food tables** and the appropriate file will be downloaded in encrypted form to a temporary location. The tables contained in that file will be displayed and you can choose to import any or all of them. Downloading and decoding the file may take half a minute or so depending on your connection speed and a progress bar is displayed while this happens.

To import food tables from the Dietplan7 installation CD, insert it and cancel the Dietplan7 installation wizard if it starts automatically. From the screen above, with **Local (CD) file** selected, click **Browse** and, navigate to the `plusfoods` folder on the CD and select either `dp70additional.sl3` or `dp70national.sl3` for the UK supplier or the other national tables respectively.

Select the table(s) you want to import by ticking the box beside each item or use the **Select all** and **Deselect all** buttons as required, then click the **Import** button. The selected tables are then loaded into the Dietplan7 database while a progress indicator is displayed. They will then be available from the main database using their respective data source codes, which will now appear in all food-selection screens and dialogs. If you used the CD, it can now be removed.

### 12.2 Remove food tables

From the **Admin** menu, select **Remove food tables**

This option can be used to remove any or all food tables previously imported with the **Import food tables** option.
All currently imported tables are displayed, each with a check box. Tick any tables you wish to delete and click **Remove**. A warning is given if you select a table containing foods that are being used in any recipe, menu or assessment and you can veto or continue with its removal.

### 12.3 Include all archived UK foods

From the **Admin** menu select **Include all archived UK foods**

By default the Dietplan7 database only displays foods from the most recent sets of food tables, namely McCance & Widdowson’s 7th Edition of *The Composition of Foods* (MW7) and the revised Composition of Foods Integrated Dataset (ID2). Foods from earlier datasets, those with data source codes MW5, MW6, FAT, IDS and UKN do not appear in the set of food tables available for selection although any recipes, menus or food diaries and assessments that contain these foods will use them normally as with any other selectable food.

If you would like these older foods to be available for selection and use, select this menu option and confirm the message above. After a short delay while all the archived foods in the database are flagged as available, the above data source codes will then appear in the set of codes that can be selected when searching for
foods and a tick or checkmark appears beside the Include all archived UK foods item in the menu. If you select the menu item again, then access to the archived food is reset and the checkmark is removed. Any archived foods added into recipes, menus or food diaries and assessments while they are available will remain unchanged.

12.4 Add or edit foods in database

Any user can add or edit their own foods in the database and they are given the data source code USF (User added food). From the Data menu, choose Add USF food or Edit USF food. On a system where multiple users are registered, these functions may have been disabled by an administrator, see below.

If user accounts have been set up, users with System Administrator privileges can use the Admin menu in which the item Admin owned ADF foods is enabled, leading to two sub-items Add ADF food and Edit ADF food, the difference being that here foods are given the data source code ADF (Administrator added food) and they cannot be altered by non-admin users.

The Admin menu also contains two other related items: Restrict USF food access allows users only to create, alter and use their own foods but not those of other users while Disable USF food access prevents users from creating or using any USF foods at all so the only foods that can be added or used are adminitrator added ADF foods.

The processes of adding and editing foods are identical for both USF and ADF foods and they are detailed in the section Add or Edit USF food

12.5 Food portion sizes

From the Admin menu, select Food portion sizes

The database can store an unlimited number of different portion sizes for each food and, when the food is selected for inclusion in an analysis, you can choose any of the portion sizes that have been defined. You can also specify the number of units of that portion, for example, 3 large slices [of bread].

The database already contains portion sizes from Food Portion Sizes (MAFF, 3rd Ed. 2002. HMSO with permission) for many of the UK foods. You can use this option to amend any of these or to add any others you need.
Specify the Source and the Reference code of the food you require, or click Browse and identify the food using any of the standard food search methods. If any sizes are already defined, the portion names and quantities are displayed. To add a new portion size or to alter or delete an existing one, click the Edit button.
An unlimited number of different portion names and sizes can be saved for any food. The upper scrolling window displays approximately 50 pre-defined portion names against any of which you can add, alter or remove the portion size in grams. The lower scrolling window allows you to add portion names of your own for this food, and to specify the associated portion sizes. The saved set of portion sizes is the combination of names and sizes from the two windows.

When editing is complete, click **OK** to see the new set of portion sizes in the initial dialog. Click **Save** in this dialog to record your changes.

### 12.6 Food input units

From the **Admin** menu, select **Food input units**

Food and ingredient quantities are added into an analysis in gram weight by default and there are several other pre-defined units. You can switch between these units for data input at any time while adding foods and ingredients into an analysis. The default units can be chosen in your preferences. With this option you can declare additional food units to be included in the list of choices of units. You can also remove any of the existing definitions, except gram and ml. The new units, like the others, are for input only. All quantities are converted into and stored in grams and all output is in metric units.

The dialog allows you to name the **Unit** and to specify the **Grams per unit** conversion factor to be used. That is, the conversion must be specified as the number of grams corresponding to one of the units being defined. Existing pre-defined input units that cannot be altered are shown with a yellow background.
You must also specify the *Unit type* of the item you are entering by selecting whether it is a weight or a volume unit. Volume units require the value of the Specific Gravity (SG), which is one of the 'nutrients' associated with each food. If a particular food, that you want to add by volume, does not have a value for the specific gravity, you can add it to the food yourself.

You can also select the *action when using a volume unit and food has no SG defined*, by choosing between Ignore, Warn and Fail. If you choose Ignore then specific gravity of 1.0 is used to calculate the equivalent number of grams.

Click **Save** to confirm your additions. Once defined, the new units are immediately available for use.

### 12.7 Define new nutrients

From the **Admin** menu, choose **Food nutrients & allergens** then select **Define new nutrients**

The database contains the definitions of around 350 constituent nutrients, although not all of these have values for every food. The full set of nutrient names can be seen in the **Select nutrients** dialog. In addition to these, you can define and activate new nutrients of your own and add values for them to any food in the database.

Any new nutrients already defined will appear in the drop-down list of the **Select nutrient** field and they can be selected in order to edit their properties. The list also contains a *<New nutrient>* item, which should be selected to create a new nutrient.
Enter the *Full name* of the nutrient that will appear in reports, a *Short name* of up to 16 characters for display screens and an *Abbreviation* of up to 9 characters for column headings in graphs and tables. Select the appropriate *Units* for the nutrient from the drop-down list and the number of *Decimal places* that will be used to display the nutrient values.

You can also add a free-text comment that will appear in the *Notes* field of the *composition of foods* notebook of any food that contains the nutrient.

Click **Save** to activate the nutrient. It can now be added to the current set of nutrients just like any other using **Select Nutrients**. But first you must **add values of the nutrient to foods** in the database.

To delete an added nutrient, recall it as above and, from the **File** menu, select **Delete**. A warning message will be displayed if the nutrient is being used in any food in the database. You can continue and delete the nutrient but all the nutrient values that have been added to foods will also be deleted.

### 12.8 Add nutrients & allergens to a food

From the **Admin** menu, choose **Food nutrients & allergens** then select **Add nutrients & allergens to food**

This procedure is the same as **editing a user added food** except you can modify any food in the database as well as your own added foods. However, only your own nutrient definition(s) and the food's *Specific Gravity*, *Free Sugars* and *Non-milk extrinsic sugars* appear in the nutrient list for adding or altering.

### 12.9 Standard nutrient lists

From the **Admin** menu, choose **Standard nutrient lists**
This function is identical in behaviour to the Select nutrients for display function that can be called from the Tasks menu by any user. It is used to create or recall a list that specifies the nutrients to be shown in every recipe, assessment and menu analysis and the order in which they are displayed. Lists can be given names and saved for re-use. You can have as many lists as you wish.

The difference between the functions on the Tasks and the Admin menus is only effective, when Dietplan is set up with User Accounts and is managed by a System Administrator. Lists created and saved by the administrator are accessible to all users from the Tasks menu, but they are labelled as Standard definitions and the list contents cannot be altered. You can use this, for example, to produce departmental standard lists so that all reports contain the same information.

12.10 Define standard reports
From the Admin menu, choose Define standard reports

This function is identical in behaviour to the define report content function that can be called from the View menu by any user. It is used to create or recall a report definition that specifies the appearance and content of a Dietplan report. The definitions can be given names and saved for re-use. You can have as many definitions as you wish.

The difference between the functions on the View and the Admin menus is only effective, when Dietplan is set up with User Accounts and is managed by a System Administrator. Definitions created and saved by the administrator are accessible to all users from the View menu, but they are labelled Standard definition and the contents cannot be altered. You can use these, for example, to produce departmental standard definitions so that all reports have the same format.

12.11 Define standard graphs
From the Admin menu, choose Define standard graphs

This function is identical in behaviour to the define graphs function that can be called from the View menu by any user. It is used to create or recall a graph definition that specifies the appearance and content of a Dietplan graph. The definitions can be given names and saved for re-use. You can have as many definitions as you wish.

The difference between the functions on the View and the Admin menus is only effective, when Dietplan is set up with User Accounts and is managed by a System Administrator. Definitions created and saved by the administrator are accessible to all users from the View menu, but they are labelled Standard definition and the contents cannot be altered. You can use these, for example, to produce departmental standard definitions so that all graphs have the same format.

12.12 Managing your data
12.12.1 Import Dietplan records
From the Admin menu, select Import Dietplan records.

You can select recipes, menus or assessments and copy them from a Dietplan7 database file into your main database. The contents of the file will have been exported from this or any other copy of Dietplan7.
You can import different analysis types from the same file, but only one type at a time. Use the group of radio buttons in the upper-left corner to make your selection. Any user-added foods contained in an imported analysis will also be imported automatically but you can also explicitly import some or all of the user-added foods in the file by selecting the appropriate button.

Enter, or browse for, the location and name of the file containing the records to be imported.

The usual search methods can be used to locate a list of candidates for import, or use Pre-select or the Enter key to list them all. Select the items to be exported from the returned list, click Select all or press Ctrl/A to select them all.

Click the Import button to copy the selected items into your Dietplan database and click Close to dismiss the page. To import other analysis types from the same file, select the new type and repeat the process.

If, during the import, an analysis of the same reference code already exists in the database, a message is displayed and your decision is requested, to overwrite the existing record or not.
If you decide to cancel, no records are imported, even those apparently copied before the duplicate was reported.

12.12.2 Export Dietplan records

From the **Admin** menu, select *Export Dietplan records*.

You can select recipes, menus or assessments and copy them from your main database to a Dietplan7 database file, which can be archived or sent to another Dietplan7 user, on disk or CD or as an email attachment. The contents of the file can be selectively imported into this or any other copy of Dietplan7.

You can export different analysis types to the same file, but only one type at a time. Use the group of radio buttons in the upper-left corner to make your selection. Any user-added foods contained in an exported analysis will also be exported automatically but you can also explicitly export some or all of your user-added foods by selecting the appropriate button.
Enter, or browse for, the location and name of a file to contain the exported records. If it is a new export, choose a name for the file and a new export file will be created, otherwise specify an existing file. Do not specify an extension to the filename (such as `.txt`). Dietplan will create an extension to the name that depends on the database management system being used. Currently it will be `.sl3`.

The usual search methods can be used to locate a list of candidates for export, or use Pre-select or the Enter key to list them all. Select the items to be exported from the returned list, click Select all or press Ctrl/A to select them all.

Click the Export button to copy the selected items into your file. To export other analysis types into the same file, select the new type and repeat the process. Click Close to dismiss the page.

12.12.3 Archive Dietplan records

From the Admin menu, select Archive Dietplan records.

The Archive function is equivalent to Export followed by Delete Dietplan records. You can select recipes, menus or assessments and move them from your main database to a Dietplan7 database file. The selected records are then deleted from the database. One or more copies of the archived data file should be kept securely and, if the contents are required in the future, they can be restored using the Import Dietplan records function.

You can archive different analysis types to the same file, but only one type at a time. Use the group of radio buttons in the upper-left corner to make your selection. Any user-added foods contained in an archived analysis will also be included automatically but will not be deleted from the database. User added foods and Recipes as foods can not be selected as a data type for archive.
Enter, or browse for, the location and name of a file to contain the archived records. If it is a new archive, choose a name for the file and a new archive file will be created, otherwise specify an existing file. Do not specify an extension to the filename (such as .txt). Dietplan will create an extension to the name that depends on the database management system being used. Currently it will be .sl3.

The usual search methods can be used to locate a list of candidates for archive, or use Pre-select or the Enter key to list them all. Select the items to be archived from the returned list, click Select all or press Ctrl/A to select them all.

Click the Archive button to copy the selected items into your file and then delete them from the database. The search list will then be updated to show only the items that remain, if any. To archive other analysis types into the same file, select the new type and repeat the process. Click Close to dismiss the page.

When archiving assessments, the owning registration record is also archived. During deletion, if the registration record is left owning no assessments, it too is deleted.

12.12.4 Delete Dietplan records

From the Admin menu, select Delete Dietplan records.

You can select recipes, menus, assessments or user-added foods and delete them from your main Dietplan7 database. Note that deleted items are removed permanently from the database and cannot be recovered. If there is the possibility of the records being required in future, use the Archive Dietplan records function instead, which will export and then delete the records.
You can only delete one type at a time. Use the group of radio buttons in the upper-left corner to make your selection. Currently no checks are made on whether a food or recipe is being used in any other analysis.

The usual search methods can be used to locate a list of candidates for deletion, or use Pre-select or the Enter key to list them all. Select the items to be exported from the returned list, click Select all or press Ctrl/A to select them all.

Click the Delete button to remove the selected items from your Dietplan database and Close to dismiss the page. To delete other analysis types, select the new type and repeat the process.

When deleting assessments, the owning registration record is examined. If it is left owning no assessments, the registration record itself is deleted.

12.12.5 Replace ingredient in recipes

From the Admin menu, choose Recipe maintenance then Replace ingredient in recipes

If you have a number of recipes that contain the same ingredient, it might become necessary to change that ingredient for another, similar ingredient in all the recipes - due to a change of supplier, for example.
Specify or **Browse** for the ingredient data-source and reference-code that you want to replace and all the recipes containing that ingredient will be displayed. Select all, or those recipes that you wish to change and then specify or browse for the replacement ingredient and click **Replace**.

12.12.6 Verify recipes
From the **Admin** menu, choose **Recipe maintenance**, then **Verify recipes**

This function scans all recipes, that may contain other recipes, that may contain other recipes etc. and reports - into the **messages and errors** window - all references to non-existent recipes and the recipe(s) that contain them.

12.12.7 Change registration number
From the **Admin** menu, choose **Registrations maintenance**, then **Change registration number**

Use this option to change an individual's current registration number with the option to copy assessments over to the new number and also to delete the original number.
Enter the *Current Registration* number to be changed, or click **Browse** to search for it. The name, sex and date of birth of the selected individual are displayed for confirmation. Enter the *New Registration* number, which must be an unused number. Click the check boxes if you want existing assessments to be copied to the new number and if you want the old number, and its associated assessments to be deleted.

If you choose not to delete the old registration number, you will have two copies of the same personal details and assessments under two different numbers. There may be occasions, say for student exercises, when you may wish to do this.

**12.12.8 Transfer assessments**

From the **Admin** menu, choose **Registrations maintenance**, then **Transfer assessments**

Use this option to move one or more assessments from one registration number to another. This can be used if one or more assessments are entered in error under the wrong registration number.
Enter, or click **Browse** to search for, the **Registration numbers** that you want to transfer the assessments **From** and **To** and verify the personal details to confirm that both are correct. Click **Select assessments** to produce a list of assessments currently belonging to the **from** registration.

Tick the checkbox alongside each assessment that you want to transfer and click **Select**. To effect the transfer, click the **Transfer** button on the **Transfer** page of the notebook. The fields on the page are all cleared after a successful transfer.

**12.12.9 Remove unused registrations**

From the **Admin** menu, choose **Registrations maintenance**, then **Remove unused registrations**

Use this option to delete selected registration records from the database from a list of those with no associated assessments.
Click **Select all** to tick the checkbox alongside every registration record or tick/untick the boxes individually then click **Delete**. Once deleted, the records cannot be recovered.

**12.12.10 Delete all category definitions**

From the **Admin** menu, choose **Food categories**, then **Delete all category definitions**

Select this option if you would like to remove all the pre-defined category definitions before creating your own.

With the exception of the [dried] Fruit, Vegetables and Nuts category definitions used by the Nutrition Profile Model, every detail of the current set of category definitions and flags will be deleted. Once removed, the definitions cannot be recovered.
12.12.11 Update foods in analyses

From the Admin menu select Update foods in analyses.

This function is only of use for installations that have been upgraded from the previous Dietplan6 software that contained earlier foods from the UK Composition of Foods tables. The Dietplan7 database contains the most recent (2014) foods from McCance & Widdowson's 7th Edition (MW7) and the revised Composition of Foods Integrated Dataset (ID2). With this option the foods in selected analyses can be updated to use the most recent food codes. While this is more likely to be of use for recipes and menus rather than historical assessments and food diaries, the latter can also be updated if required, perhaps to progress an ongoing project or study.

All the foods and ingredients in the selected analyses are examined and any with earlier data source codes MW5, MW6, FAT, IDS and UKN that have been replaced by a corresponding food in the new ID2 dataset will have its data source and food code changed to that of the replacement food.
On clicking **Update** a message is displayed showing the number of ingredients and analyses updated and, if greater than zero, this is followed by a detailed list of the affected items.
12.13 Backup and restore

12.13.1 Backup Dietplan database

From the Admin menu, select Backup Dietplan database.

This allows a copy to be made of the entire Dietplan7 database. The minimum database size is about 85 Megabytes but could be up to twice this size depending on the additional food tables and user-saved analyses it contains. The copy should be made either to a removable storage medium or across to a remote, network disk drive. The purpose of the backup is to keep copies of the Dietplan database safe from the effects of a hard-disk failure or the total loss of the computer system.

The backup takes a snapshot of the main Dietplan7 database and stores it in a compressed Zip file that is typically 4 to 6 times smaller than the original.
You can specify the name of the zip file and where it is to be created. The default name is based on the current date and time and is of the form:

Dp6Backup-YYYYMMDD-HHMM.zip

On successful completion, the full path name and size of the created backup are displayed.

There is an option for Auto-backup on exit on the Preferences menu that may be of particular use if running the Portable version of the software from a USB flash drive.

The backup and restore options menu options are only enabled when no other activities are in progress, that is, no workbook pages are open. Also these options can only be used with the default embedded Sqlite database. If you have a multi-user installation with a client-server PostgreSQL or Microsoft SQL Server database, the recommended backup and restore functions associated with these database should be used.

12.13.2 Restore Dietplan database

From the Admin menu, select Restore Dietplan database

This function allows the database, perhaps of a freshly-installed copy, of Dietplan7 to be restored to the exact state of a previously backed-up copy of an entire database. With this option, data restoration is an all or nothing activity and the whole of the current database is replaced by the contents of the selected backup copy. To restore selected items from a backup into the current database without replacing it, choose Restore selected items from the Admin menu.
The names, dates and locations of previous backups are displayed and whether they are currently accessible on the system. You can select any of the available backups and restore it, after a confirmation message.

The following message is displayed if you select a backup that is not currently available:

You can remove any item from the historical list by selecting it and clicking **Delete**. If the backup copy itself is accessible (Available= Yes) then it will be deleted, after confirmation. Otherwise this only removes the history of the item.

If your current database is a new installation of Dietplan, say, following a disk failure, the backup history will not be available. In this case you can locate your backup copy by using the **Search** button.
After the database has been restored a confirmation message is displayed and the program is restarted using the restored database.

12.13.3 Restore selected items

From the **Admin** menu, select *Restore selected items*

This function allows you to select an earlier database backup and restore as many individual, selected items - recipes, menus, personal assessments and user-added foods - as you wish.

The initial selection of the backup copy to restore from is identical to the selection described in the previous section.

Once selected, the backed-up database is opened and the same options are available as in the [import database records](#) function described earlier.
12.14 Access management

12.14.1 Enable user accounts

When first installed, Dietplan does not require users to be registered in order to use the software, and anyone can access the system administrator functions and potentially make significant changes to the system and the contents of the database. When user accounts have been set up, only registered users can access the system and only those designated as a system administrator when they are registered can use the functions on the Admin menu. Another significant advantage of having individual user accounts, is that each registered user can save their own personal program preferences, lists and definitions in the database.

User accounts are available with the Professional version of Dietplan7, but not with the Personal version. Only a system administrator can register and specify the privileges of new users.

To activate user accounts, from the Admin menu, select Enable user accounts. Before Dietplan enables user accounts, at least one user with system administrator privileges must be registered.

When user accounts have been enabled, a tick or checkmark appears beside the Enable user accounts item in the menu. If you select the menu item again, then
accounts become disabled and the checkmark is removed. Disabling user accounts does not delete any registered user details.

12.14.2 Register users

From the **Admin** menu, select *Register users*

Use this function to register a new user or to edit the details or delete an existing user.

A notebook page is opened showing a list of all currently registered user names, their administrator privileges, the number of times they have logged in and the date of the most recent access, plus any other user details recorded.

Click **Add** to create a new user registration, **Edit** to amend the details of an entry and **Remove** to delete an existing registration completely.

You can either link user registrations to their authenticated OS (e.g. Windows) account names or you can allocate each user a unique login name and associated
password. Linking a user to their OS account means that their identity is already validated and Dietplan will start without any further challenge. If you allocate a name, the user will have to supply that name and password every time they run Dietplan. This was originally the only way of setting up Dietplan user accounts but it has since been supplemented by using the OS account, which is now the recommended method. You can mix the two types if you wish, with some users gaining access via their OS identity and others needing to log in explicitly. However, explicit names cannot be used if there is a self-registering OS <userid> present as described below.

**Using OS user names**

Ensure that the *Use OS login names* box is checked.

Initially, the Login Id field is enabled and contains the entry <userid>. This is a special, symbolic name that represents any OS (eg Windows) user who has not been explicitly registered within Dietplan. So, for example you could explicitly register one or more users and give them System administrator rights and then permit all, say, students to self-register via this symbolic entry and be given the privileges declared here in this dialog. The self-registration is automatic and transparent the first time a new user logs in. The only effect is that the real user...
name, together with the login history then appears in the register of users. If you do not wish to allow auto-registration, ensure there is no registration entry with the name <userid>. To register a specific OS user, enter their exact OS Login Id.

By default the Home directory is <OS home>/Dietplan7. This an automatically created folder/directory called Dietplan7 in the private partition or home folder that the operating system creates when it registers the user. All the user’s saved reports, graphs and other files are written to subfolders (definable by the user via Edit|Preferences) of this home directory.

If Dietplan is installed on a network drive and so is available to multiple workstations, access is restricted to the number of concurrent users that have been licenced. To prevent an inactive user from denying access to others by failing to close down the program, an inactivity timer has been introduced. This has a default value of 20 minutes but can be set for individual users to between 5 minutes and 5 hours, or Never. If Dietplan remains inactive - no keyboard or mouse activity - for the specified period, after a warning message and a 30 second grace period, the user session will be terminated. Any unsaved work will be lost.

Check the boxes in the Privileges panel to grant these to the new user. A System administrator has full access to all the items on the Admin menu, including the rights to create and delete registered users.

The right to Save to database allows the user to save recipes, menus and assessments in the main database, where they are accessible to all other users. If this privilege is not given, the user cannot do so but can still save their work in a private database area that is created in their own home directory. To the user this appears as a seamless extension to the main database and they should not be aware of any differences.

Import catering data files appears if the Dietplan licence includes the ability to import data files from catering packages like Manna and MenuMark. Enable this privilege for the users allowed to perform this task.

To register a specific OS user, enter their exact OS Login Id.
User details can optionally be entered to provide more information about the user's identity. They are only for information within the registration record.

Using explicit user names

Ensure that the Use OS login names box is **not** checked
Every registered user must be allocated a unique Login Id. There are no restrictions on the length and content of the name. It is not case sensitive.

You also need to allocate each user a password. Once it is entered, only the owner should be told, as the security of the whole system depends on the responsible use of passwords. Passwords are never displayed on screen so each must be entered twice here to confirm its validity. It is case sensitive and must be at least six characters long and should not be anything that could be guessed easily and a combination of letters and numbers is better than an ordinary word. If a user password is forgotten, replace it with a new one using the **Edit** option.

The rest of the fields are the same as when registering a user via their OS login as described above.

If *Change password* is checked, the user can change their own password at any time using the **Change password** option on the **Edit** menu.

**12.14.3 Register user groups**
From the **Admin** menu, select **Register user groups**

Use this function to register a new user group or to edit the details or delete an existing user group.
Click **Add** to create a new user group or **Edit** to amend the details of an existing one.

The Group Id is the item with which individual users are associated when they are made members of the group and with which new Dietplan registration records are “Created by” when any member of the group creates one. The Group Description may be used to provide any information that helps identify each group. The list of defined groups in the earlier **Register Group** screen shows the number of members (users) in each group and the number of Dietplan Registration records the group has created.

Click **Members** in this screen to display the user names belonging to the highlighted group.
A group can be deleted using the Remove button only if it has no members and no associated registration records.

Individual users can be added as members of a group using the Add or Edit buttons in Register Users on the Admin menu and selecting the appropriate Group Name from the drop down list.
A user can only be a member of one group at any time, but can be assigned to another group (or None) by editing that user's record.

To summarise, user groups are used to control access to Dietplan registration records and their associated assessments. Such records created by a user belonging to any group are only visible to the members of that group and all other users are not aware of the existence of those records. As before, records created by a user who is not in any group are accessible to everyone, as are all foods, recipes and menus regardless of who created them.
13. Glossary

13.1 Analysis groups
Some types of analysis, that is, menus and intake diary assessments, require you to divide the analysis into a specified number of days, meals, courses and choices of dishes. These are referred to as analysis groups and the foods intended for, or consumed in each individual group are entered and stored separately within each group.

13.2 Averaged intake
An averaged intake assessment records the total consumption over a specified number of days with no information about when each food was eaten. At the end, an analysis can be produced that reports both the total and average daily intake.

13.3 Dietary Reference Values
A term used to cover Reference Nutrient Intake (RNI), Estimated Average Requirement (EAR) and Lower Reference Nutrient Intake (LRNI). The values recommended by the Committee on Medical Aspects of Food Policy (COMA) in 1991.

13.4 Estimated Average Requirement
For energy, protein, a vitamin or mineral, The EAR for a group of people is the amount where about half will usually need more than the EAR, and half less.

13.5 Food group
Every food in McCance & Widdowson's, The Composition of Foods and its supplements has been allocated a food group code of one, two or three letters. The groups are hierarchical so, for example, group A includes group AB which, in turn includes group ABC.

13.6 Intake diary
An intake diary records a person's consumption on individual days throughout the assessment period. The consumption of individual meals and also courses within meals can also be recorded if required. In many respects this is similar to a menu analysis except it records what is actually eaten rather than what is available.

13.7 Lower Reference Nutrient Intake
For protein, a vitamin or mineral, The LRNI is an amount of the nutrient that is enough for only the few people in a group who have low needs.

13.8 Nutrient exchange value
Nutrient exchange values answer questions of the form: what quantity of this food is required to supply 10 grams of carbohydrate? That is, you specify amount of the nutrient you want and Dietplan calculates the quantity of the food or ingredient needed to contain that amount.

13.9 Portable document format (PDF)
Originally developed by Adobe Inc. as an extension of the Postscript printing standard, PDF is now a universally accepted format for electronic documents. It is portable across all computer platforms and the internet via the freely available
Acrobat Reader and the open-source Ghostview and GhostScript tools that can be used for both viewing and printing PDF files.

13.10 Portable network graphics
PNG format is a commonly used method of storing bit-mapped images in computer files. It compresses the information to minimise the file size but the image can be reconstructed without loss. PNG format files can be displayed by a wide variety of software including most, if not all, web browsers, and image processing and desktop publishing packages.

13.11 qualifying indicator
The letters below can follow the value of any nutrient total. They mean that, for one or more contributory foods:

- **d** nutrient computed by difference method
- **e** nutrient quantity estimated
- **+** nutrient present in significant, unknown amounts
- **m** nutrient value missing

13.12 RDA
Recommended daily amount. A value required by the EC directive on food labelling.

13.13 Reference Nutrient Intake
For protein, a vitamin or a mineral, the RNI is an amount of the nutrient that is enough, or more than enough, for about 97% of people in a group. If average intake of a group is at RNI, then the risk of deficiency in the group is very small.

13.14 Scientific (E-format) notation
In scaled "E" format - the number displayed must be multiplied by the power of 10 shown after the E character.

For example: 24681E6 represents 24681 times 10 to the power 6 (i.e. times 1,000,000)

So, the quantity is 24,681,000,000

This will only happen rarely when extremely large numbers are involved. The easiest way to interpret the E notation is to mentally add as many zeros to the value as the number shown after the E.

13.15 UK Nutrient Databank
The UK Nutrient Databank is supplied and maintained by the Food Standards Agency. The material is Crown copyright and is reproduced in Dietplan under licence from the Controller of Her Majesty's Stationery Office.

The complete databank comprises food and nutrient values from the 5th, 6th and 7th summary editions of McCance & Widdowson's *The Composition of Foods* together with all the published supplements to the 4th and 5th editions plus the new and revised foods in the *Composition of Foods integrated data set*.