# FoodCASE v 1.4.5

# User Manual for Administration

## Administration Tool

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## Contents

# 1 Introduction

## 1.1 What is FoodCASE

FoodCASE (**F**ood **C**omposition **A**nd **S**ystem **E**nvironment) is a computerized food information management system that merges standardized rules and provide an environment for harmonized food composition data (FCD) compilation.
It consists of two software applications – Compiler Client Module and Administration Tool. The former is utilised by compilers for FCD documentation and the latter allows setting properties and parameters applied for documentation and is only available for users with administrator rights.

## 1.2 FoodCASE Administration Tool

It is an extra software application of FoodCASE for setting properties and parameters applied for FCD documentation. The application is accessible only for compilers with administrator rights. Even the administrator himself does not have full rights to modify all settings, standard thesauri and other parameters. The database system available in the application is based on the European recommendations on food composition databases (Schlotke, et al., 2000; Becker, et al., 2007; Becker, et al., 2008; EuroFIR, 2013).

# 2 About the Manual

This manual gives instructions for managing systems, thesauri and quality parameters of FCD management system, FoodCASE. The manual is divided in several chapters based on the software layout. Particular steps of system management can be conducted arbitrary. Users can start work with each chapter independently on each other.

# 3 Login and Exit

## 3.1 Login

For starting FoodCASE Administration Tool (hereinafter also application) user needs a personal user name and a password (Figure 3.1-1). The login data are case sensitive. As soon as the user is logged in, all operations (inputs or modifications) are recorded under the registered name.
FoodCASE is a multi-user application, which means that multiple user can login at the same time. FoodCASE is also a client server system, which means that a user is working with a client application that is connected to the FoodCASE server, which is responsible for the data storage.

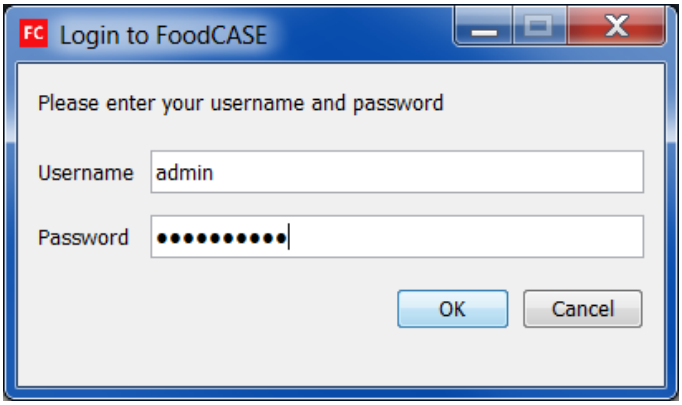



Figure 3.1-1

If user name and/or password is not correct error message displays (Figure 3.1-2). Number of login attempts is not limited.


Figure 3.1-2

## 3.2 Exit

To exit the application use one of the following:

- Click the *Menu File → Exit Ctrl+Q*,
- Use the **Ctrl+Q** keys,
- Click the “x” sign in the upper right corner of the main screen.

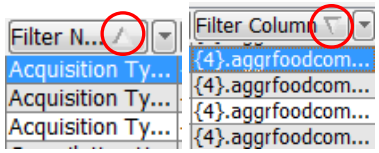
# 4 Getting Started

## 4.1 Graphic Controls

The controls are listed from a major part in a chronological order based on usage of the application.

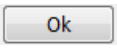

**Drop-down list** – displays a list of available descriptors, columns, categories, properties or records and enables choosing one item from the list.


**Check/tick box** – represents one of two values - "*True"* or "*False"*. Tick ☑ in the check box field indicates *"True"*, which in most cases means that the operation is applicable for indicated record.

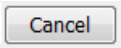



**Ascending/Descending Order** – click on a header of any column sorts data in table in either ascending or descending order corresponding to the selected column.

*Note: Numbers are ordered first, then letters are ordered based on English alphabet and special letters (e.g. ä, š) are ordered in the end of the list.*



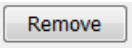

**Confirm** – confirms the process or action.



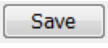

**Cancel** – cancels selected option without any change.


**New** – activates or displays empty rows for adding new record (i.e. descriptor, code, marker, condition, etc.).

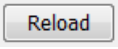

**Edit –** makes accessible details of selected record (row) for modification.




**Remove** – removes record from the tab.

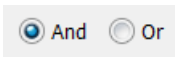



**Save** – stores changes on data.



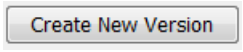

**Reload -** reload of data


**Select from thesaurus/index, search in folder** – opens standardized thesaurus, data table or folder and enables searching in it and select descriptor, record or file.



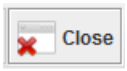

**Radio button** – only one option is allowed, it is applied for searching feature as an operator.


**Searched text** – field for entering information that is searched.

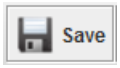



**Create New Version** – it creates a new version of the aggregated database, i.e. all data will be copied from the aggregated level into the new version.

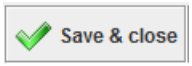

**Mark Version for Publication** – marks particular database version that is ready for publishing.



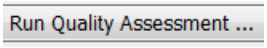

**Close** – ends up work in detail window of a record and abandons it. If a particular record has been modified, a control question asking on saving changes or not precedes closing the window.



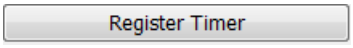

**Save** – saves changes made on a record and leaves the detail window of the record open.




**Save and close -** saves a change made on a record, ends up work in detail window of the record and abandons it.

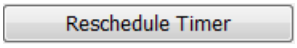



**Run Quality Assessment…** - launches the quality assessment based on defined parameters.

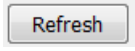



**Register Timer -** opens a window for setting a period for automatic data quality assessment run.


**Cancel Timer** – cancels timer set for a periodic data quality assessment run.




**Reschedule Timer –** opens a window for resetting timer.




**Refresh** – clears all search criteria and reloads actual data (e.g. just added or changed) from database.

## 4.2 General Functionalities of Main Registers

### 4.2.1 Column Customisation

The columns of each tab in the working area are customisable. One can move the displayed column to a desired place in the table by clicking on the head of the column and drag it to the desired position (Figure 4.2.1-1 and 4.2.1-2). Further, in the Versioning and Data Quality Analysis registers columns can be hidden (and displayed again) by right click on column head and using given options (Figure 4.2.1-3).
For arranging columns to the default settings, close the application.

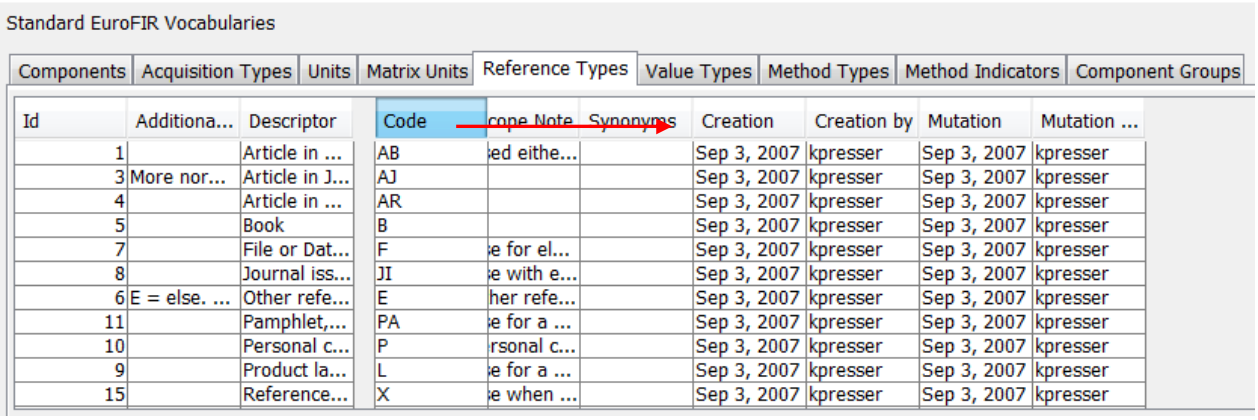



Figure 4.2.1-1

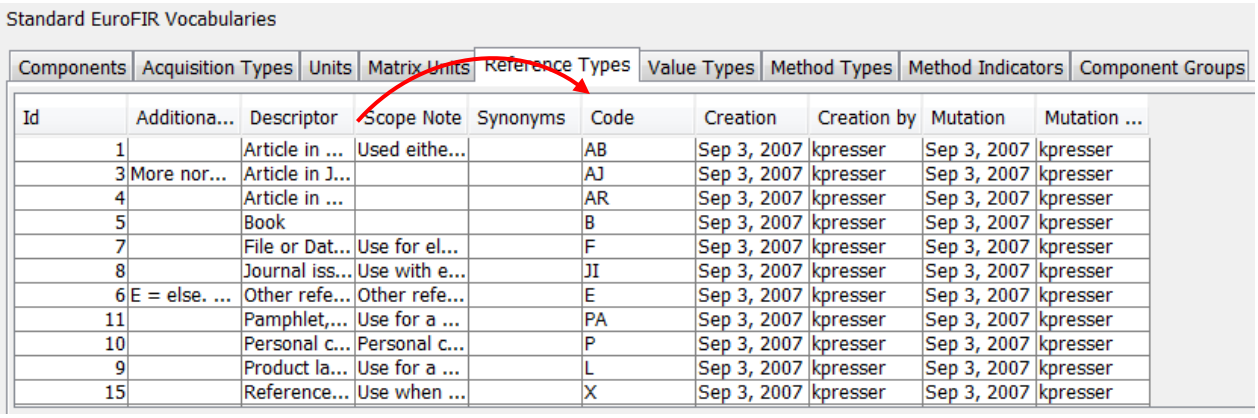



Figure 4.2.1-2

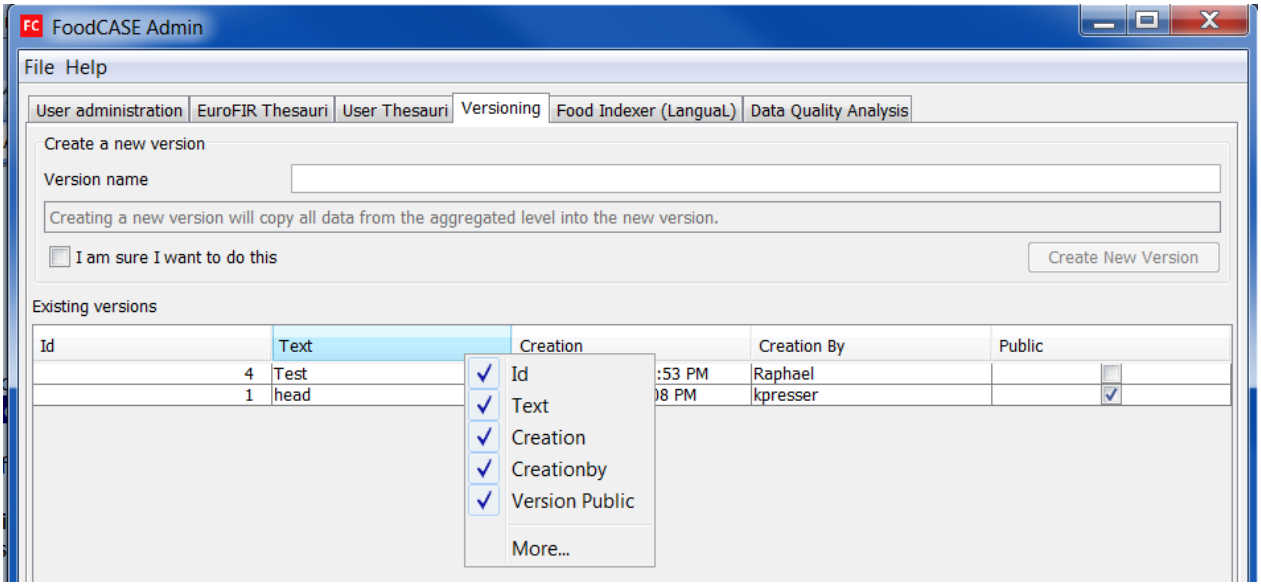



Figure 4.2.1-3

### 4.2.2 Simple Copy and Paste Exporting

Individual row can be copied to another application (e.g. Excel, Word) with **Ctrl+C** and **Ctrl+V** keys (Figures 4.2.2-1 and 4.2.2-2).

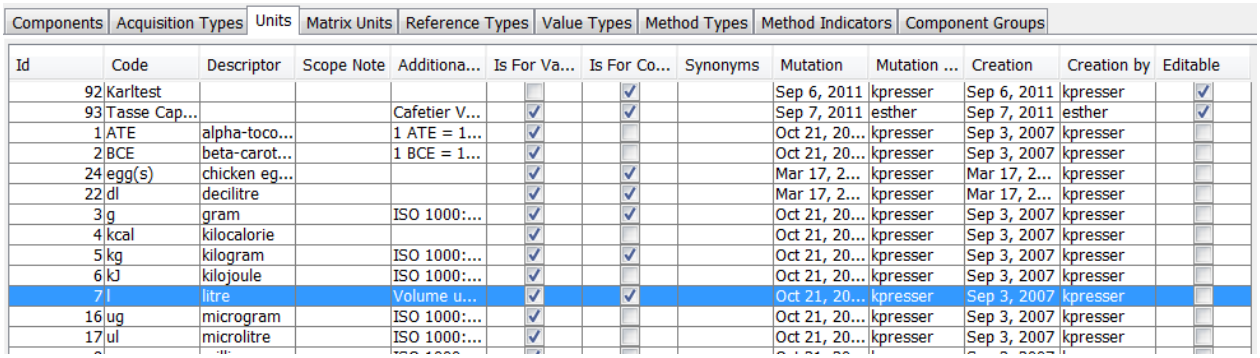



Figure 4.2.2-1

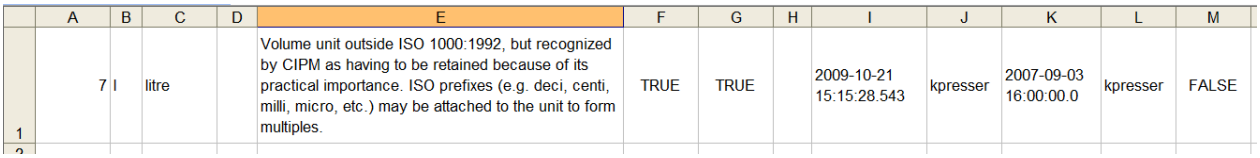



Figure 4.2.2-2

## 4.2.3 Ascending/Descending Order

Left click on the head of the column orders rows in ascending or descending way.

Ordering is following: first are words beginning with special characters (e.g. “+”, “%”, “_”, “/”, “´”), numbers, second are words starting in English alphabet and special letters (e.g. ä, š) close the order.

## 4.2.4 Filtering Options in Data Quality Analysis Register

Some columns contains drop-down arrow, which allows filter information in a table. Activation of drop-down list on column header shows filtering criteria specific to the column (Figure 4.2.4-1). Advanced filter can be set to an individual column by selecting “(Custom)” functionality and using Custom AutoFilter (Figure 4.2.4-2).

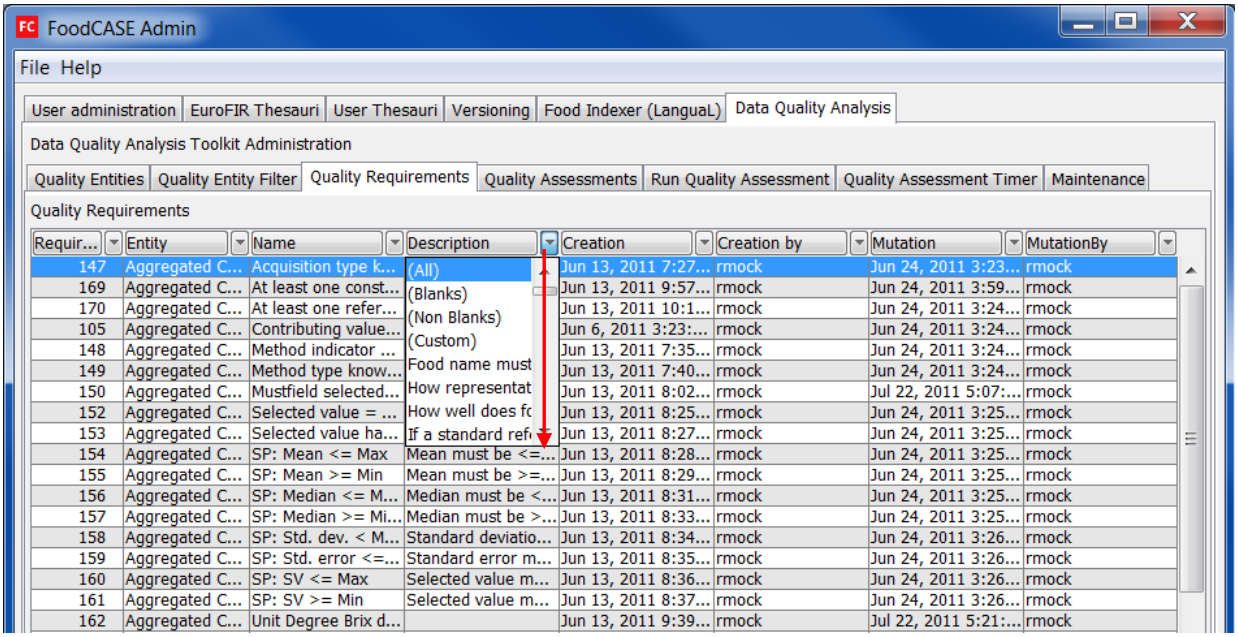



Figure 4.2.4-1

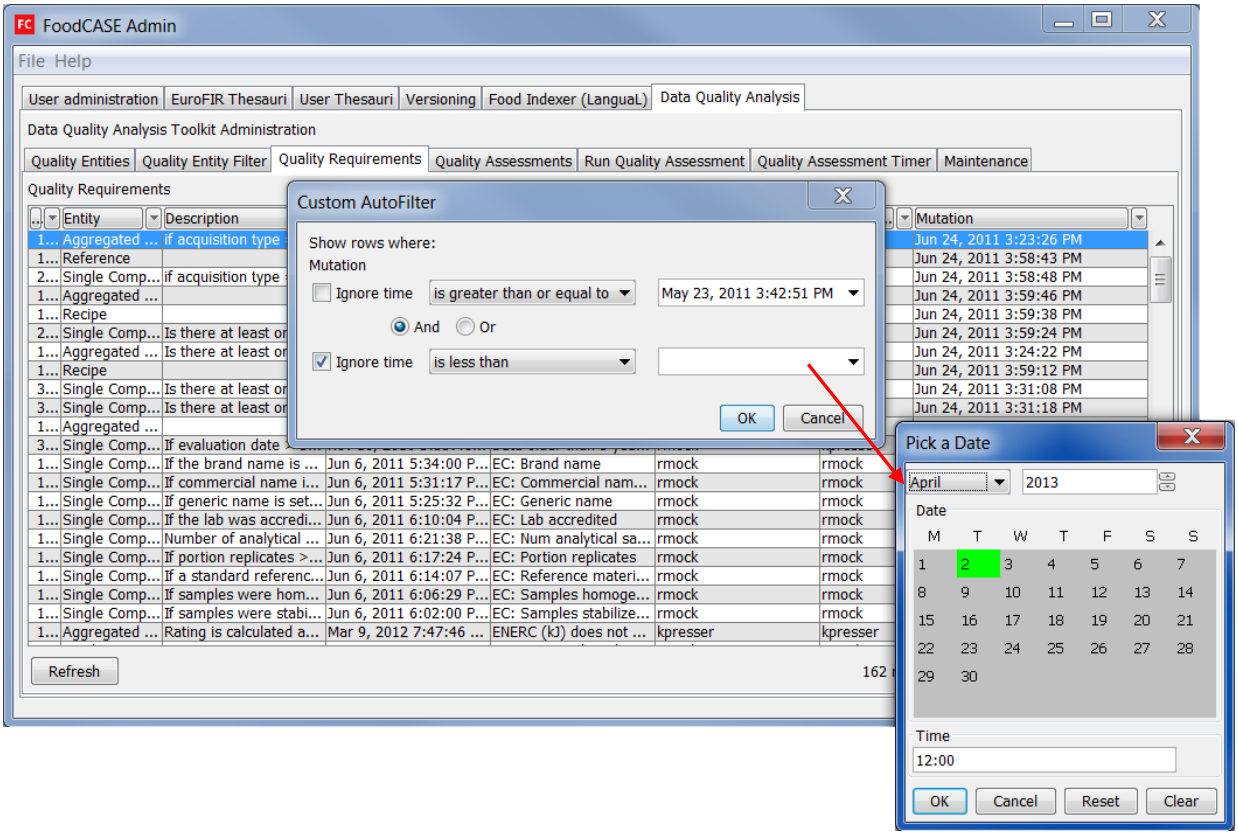



Figure 4.2.4-2: Filtered data based on given criteria in Custom AutoFilter

## 4.2.5 Colour Conventions and Indicators

**White fields** – active text fields accessible for modification,
**Grey fields and texts**– read-only, fields and buttons not accessible for modification or use.

## 4.2.6 Working with Registers – Opening, Adding, Editing and Deleting Record

Modifications of descriptors are partially limited since Administration Tool contains standardized thesauri and coding systems that are generally recognized by European compiler organisations and their proper use is essential for data compatibility. Thus, arbitrary modification is undesirable and hence the modification of the EuroFIR thesauri are not allowed. All these thesauri are located in the “EuroFIR Thesauri” tab.
Users with administrator rights are allowed to modify the General Settings, User Administration, User Thesauri, Versioning and Data Quality Analysis registers.

**Opening Record**

There are two possible ways for opening a record:

- *Single click* on a record displays detail at the bottom of the tag (Figure 4.2.6-1). This is applicable in all registers except for Quality Assessment register.
- *Double click* on a record or click on the **Open** button opens a detail window of a record. This is valid in the Quality Assessment register only. User can modify particular record in detail window (Figure 4.2.6-2).

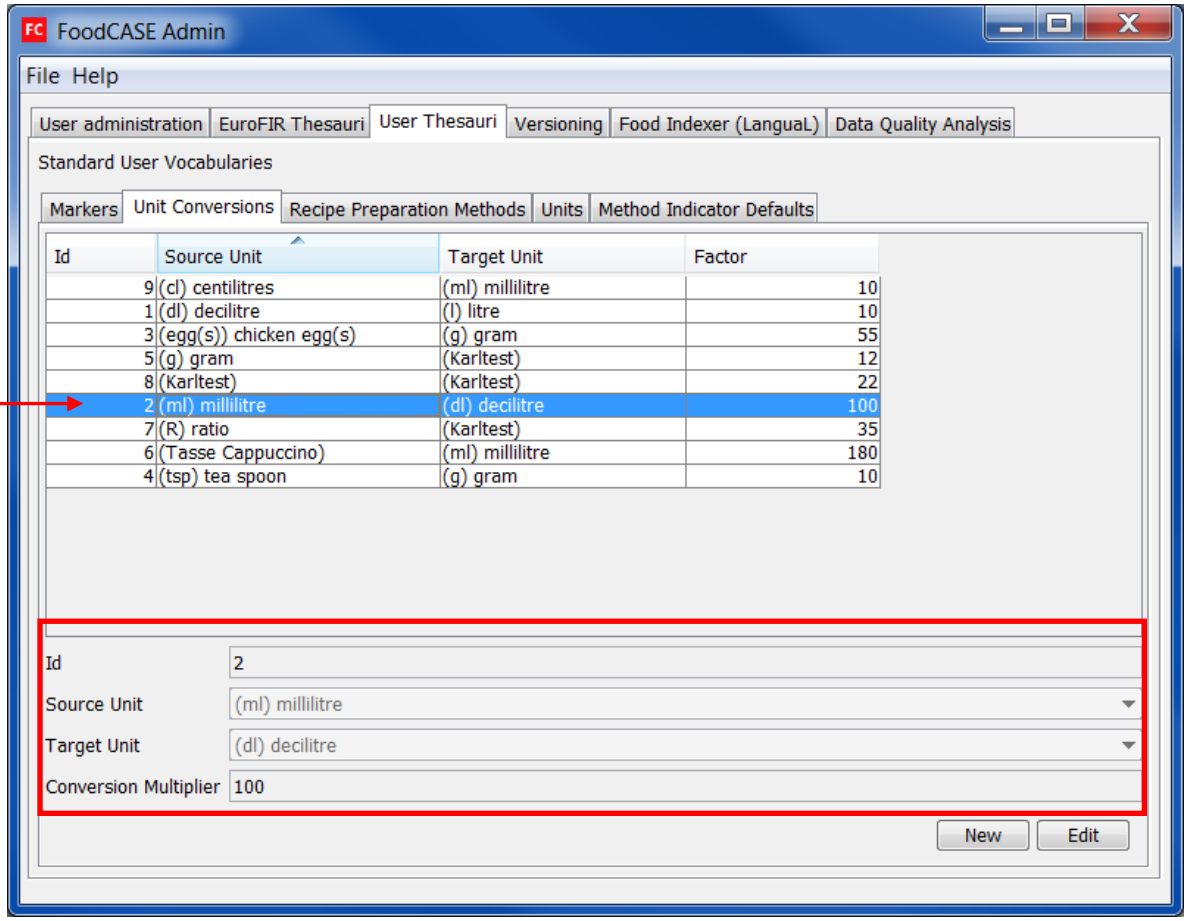



Figure 4.2.6-1

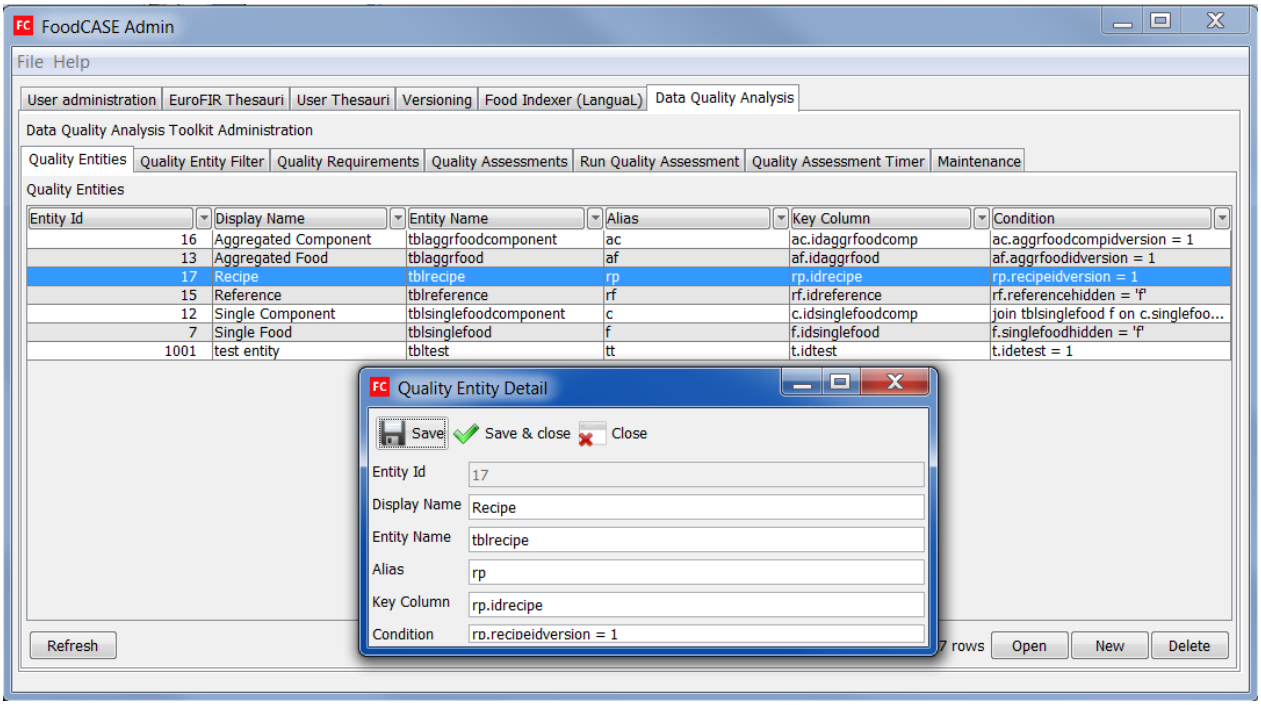



Figure 4.2.6-2

### Adding New Record

Adding a new record can be conducted in all registers except for EuroFIR Thesauri register by using the **Add** or **New** button.

### Editing Record

There exist two possible ways for record modification:

- Click on the **Edit** button makes record details accessible for modification (colour of the field turns to white colour) and click the **Save** (or **Save and Close**) button saves the modified information.
- Modification of information in detail window of a record and click the **Save** (or **Save and Close**) button saves the modified information.

### Deleting Record

Deletion is irreversible and can be done by clicking on the **Delete** button. Deletion is possible only for following registers:

- User Administration
- Quality Assessment Analysis

Deletion must be confirmed by clicking on the **Yes** button (or the **No** button if deletion is not desired) (Figure 4.2.6-3).

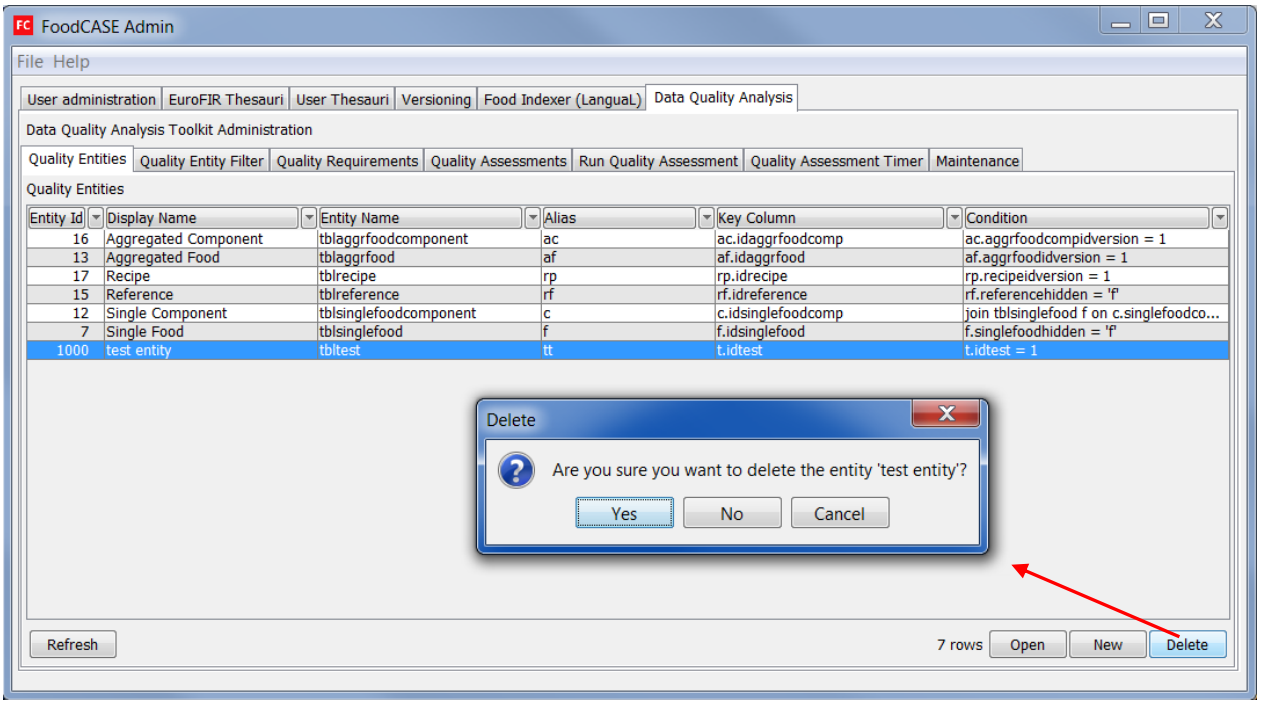



Figure 4.2.6-3

# 5 Main Application

## 5.1 Main Screen

The main screen of the application (Figure 5.1) has a very simple layout consisting of six main registers:

- General Settings
- User Administration (Figure 5.1)
- EuroFIR Thesauri
- User Thesauri
- Versioning
- Data Quality Analysis

Some registers contain further sub-registers (tabs).

When application is launched, user always sees the register which was open, when it was last closed.

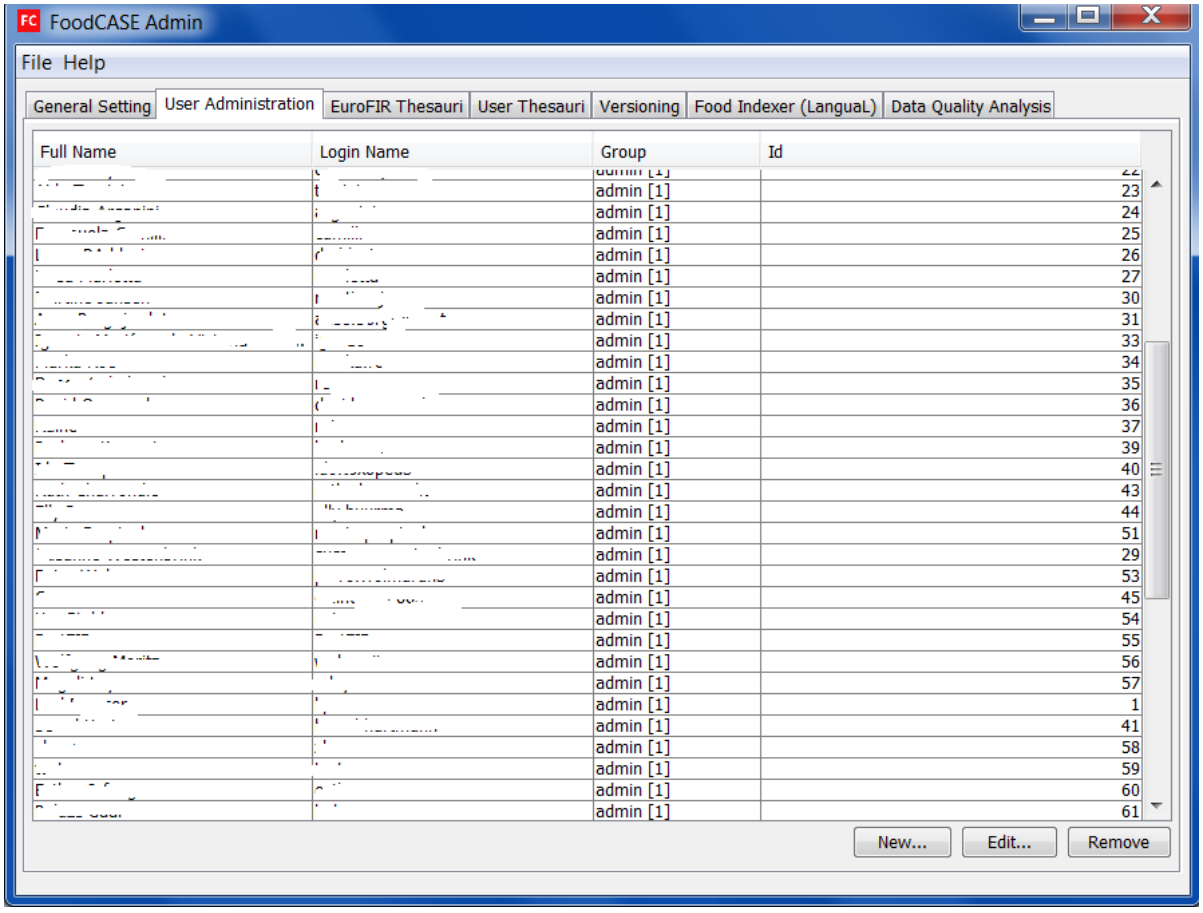
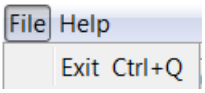



Figure 5.1

## 5.2 Menu Bar

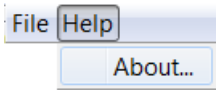
### 5.2.1 Menu File




**Exit Ctrl+Q**

Click the *Menu File → Exit Ctrl+Q* or use of the **Ctrl+Q** keys closes the application.

### 5.2.2 Menu Help




**About…**

*Menu Help → About* is an information window about version of the application, copyright and owner (Figure 5.2.2).


Figure 5.2.2

# 6 Working with Registers

## 6.1 General Settings

### 6.1.1 Bug Tracking

It displays the URL to the current BugTracker system (Figure 6.1.1-1). When compilers working in the Compiler Client application and want to report bugs, they will be directed to this URL when they click on *Menu Tools → BugTracker*. The BugTracker system is accessible for registered users only.

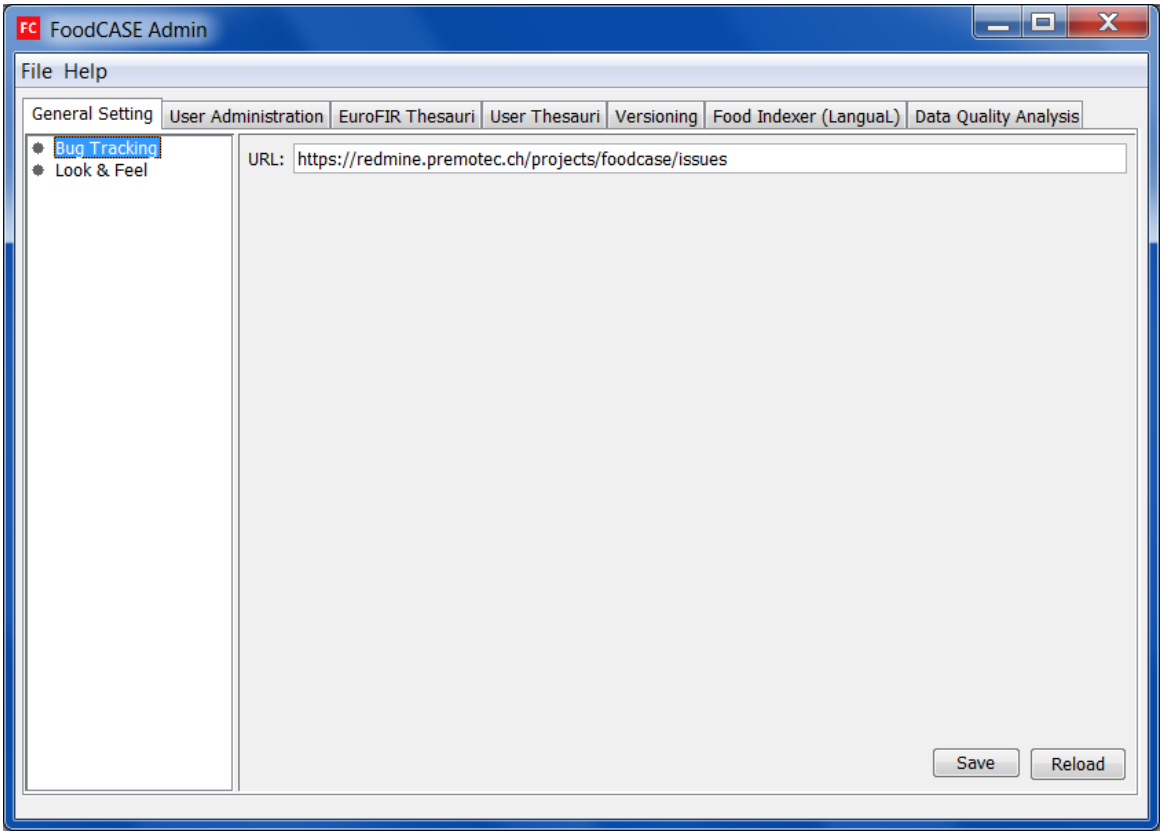



Figure 6.1.1-1

## 6.1.2 Look & Feel

The tab enables selection of different colours and defining a title of the Compiler Client application (Figures 6.1.2-1 and 6.1.2-2). This helps users distinguish a productive environment from a test environment. If users have installed FoodCASE twice, once to test some data and functionality (test environment) and once for their productive data, these two settings help faster recognition if one is working in the test or productive environment.

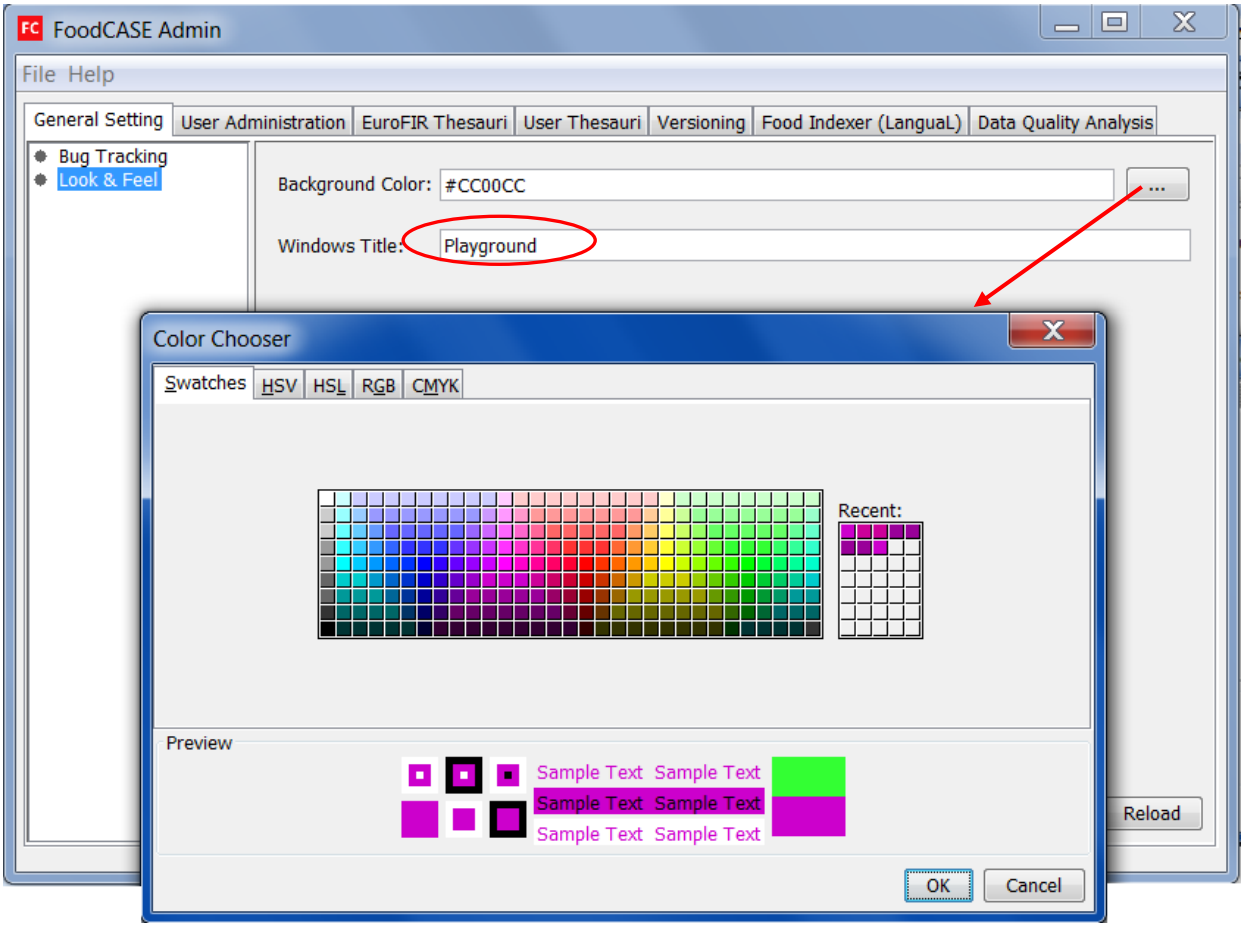

FoodCASE Admin
File Help
General Setting
User Administration
EuroFIR Thesauri
User Thesauri
Versioning
Food Indexer (LanguaL)
Data Quality Analysis
Bug Tracking
Look & Feel
Background Color: #CC00CC
...
Windows Title: Playground
Color Chooser
Swatches
HSV
HSL
RGB
CMYK
Recent:
Preview
Sample Text Sample Text
Sample Text Sample Text
Sample Text Sample Text
OK
Cancel
Reload

Figure 6.1.2-1

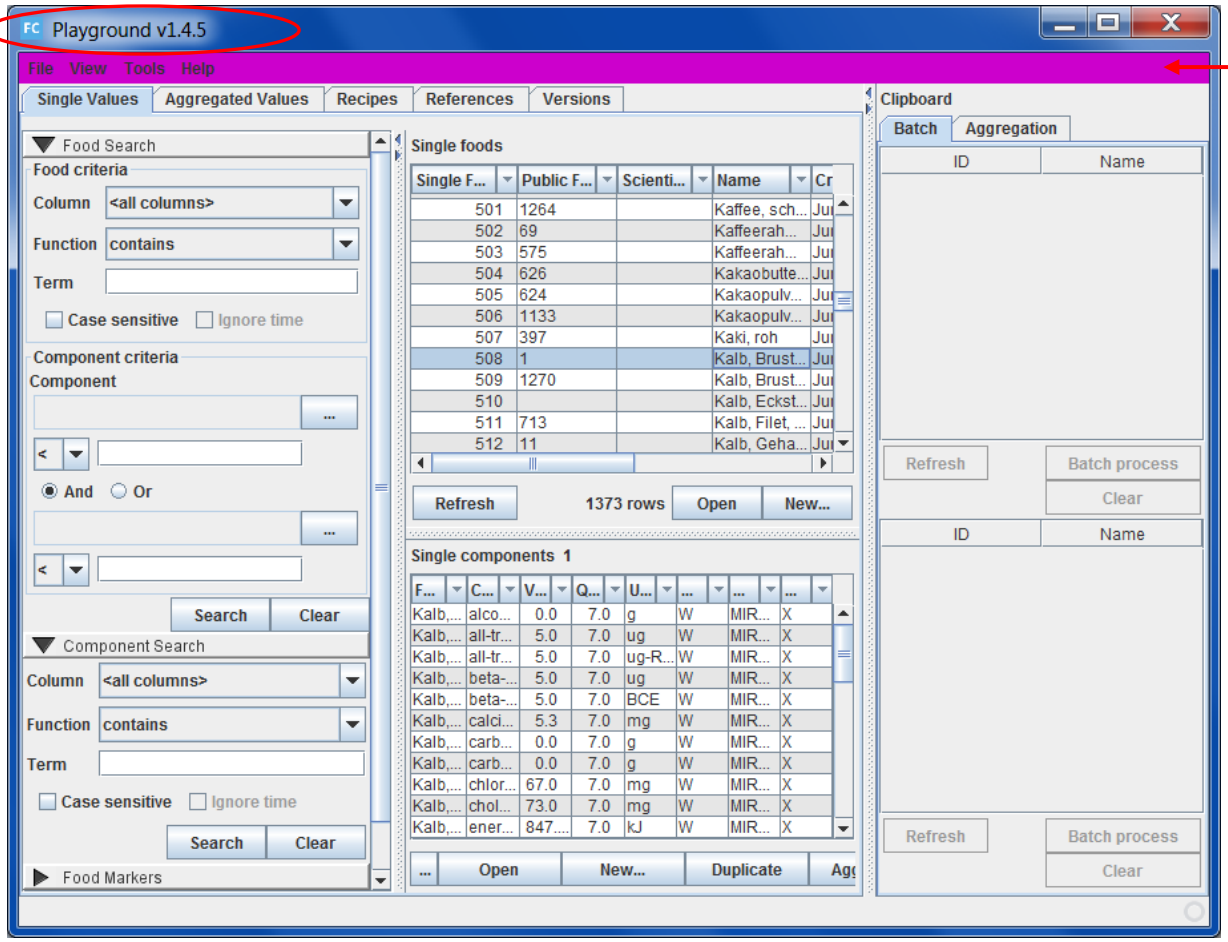



Figure 6.1.2-2: Name of the environment and the coloured strip over the menu displays in Compiler Client module

## 6.2 User Administration

The register is used for management of users of the application. There are two user roles created at present:

- Admin [1] – has right to work with FoodCASE Administration Tool and may define and modify existing compilers for using FoodCASE Compiler Client module,
- Compiler [2] – has an access to work with FoodCASE Compiler Client module.

### 6.2.1 Adding New, Modifying and Deleting Existing User

Admin can add new users and modify or delete existing users.

**Adding new user**

1. Go to the User Administration register (Figure 5.1)
2. Click the **New...** button
3. Complete login name, name of a user and a password (default password is displayed)
4. Click the **OK** button to save the user (Figure 6.2.1-1)

*Note: When creating a new user, the administrator defines the password, but the password will not be displayed in the table. The administrator is not able to see any passwords of any user after creating the account.*

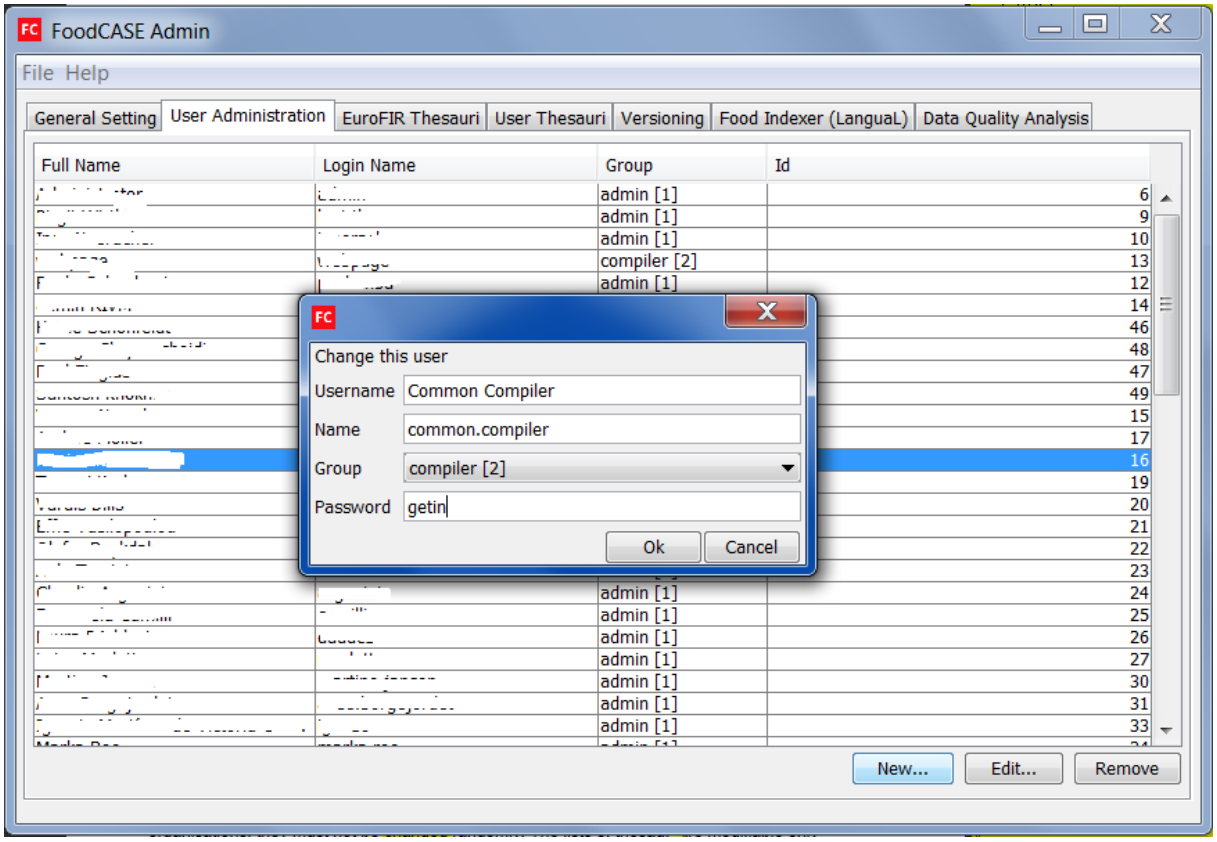



Figure 6.2.1-1

**Modifying existing user**

1. Go to the User administration register (Figure 5.1)
2. Set cursor on a user
3. Click the **Edit...** button
4. Edit login name, name of a user and add a password
5. Click the **OK** button to save changes (Figure 6.2.1-2)

*Note: When a user forgets his/her password, the administrator cannot give it to him again but the administrator can overwrite the password, give this new password to the user.*

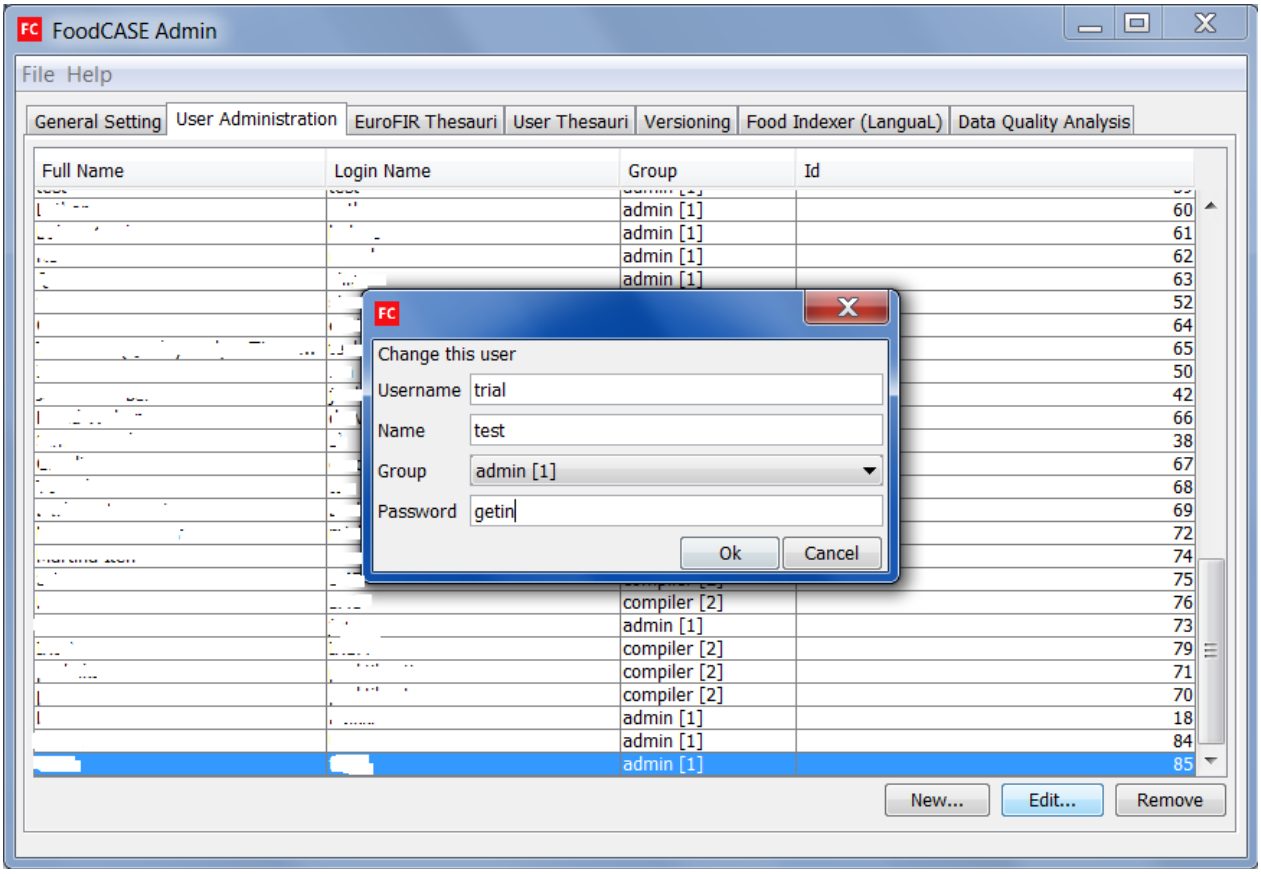



Figure 6.2.1-2

**Deleting existing user**

For removing a user, set the cursor on desired user and click the **Remove** button. The user is immediately deleted from the list and losses all access rights for FoodCASE.

## 6.3 EuroFIR Thesauri

The register is used for viewing EuroFIR thesauri. There are following thesauri included: Components, Acquisition Types, Units, Matrix Units, Reference Types, Value Types, Method Types, Method Indicators and Component Groups (Figure 6.3).

EuroFIR thesauri have common concept with following fields: code, descriptor, scope note, additional information, synonyms and related terms. Code and descriptor are mandatory, while other fields are optional and are useful for complementary and unambiguous description of a concept.

Each thesaurus contains column “Id”, which contains database identifiers for listed descriptors and columns indicating who and when created and modified a record.

Since EuroFIR thesauri are standardized vocabularies that are recognized by compiler organisations, they are not modifiable in FoodCASE.

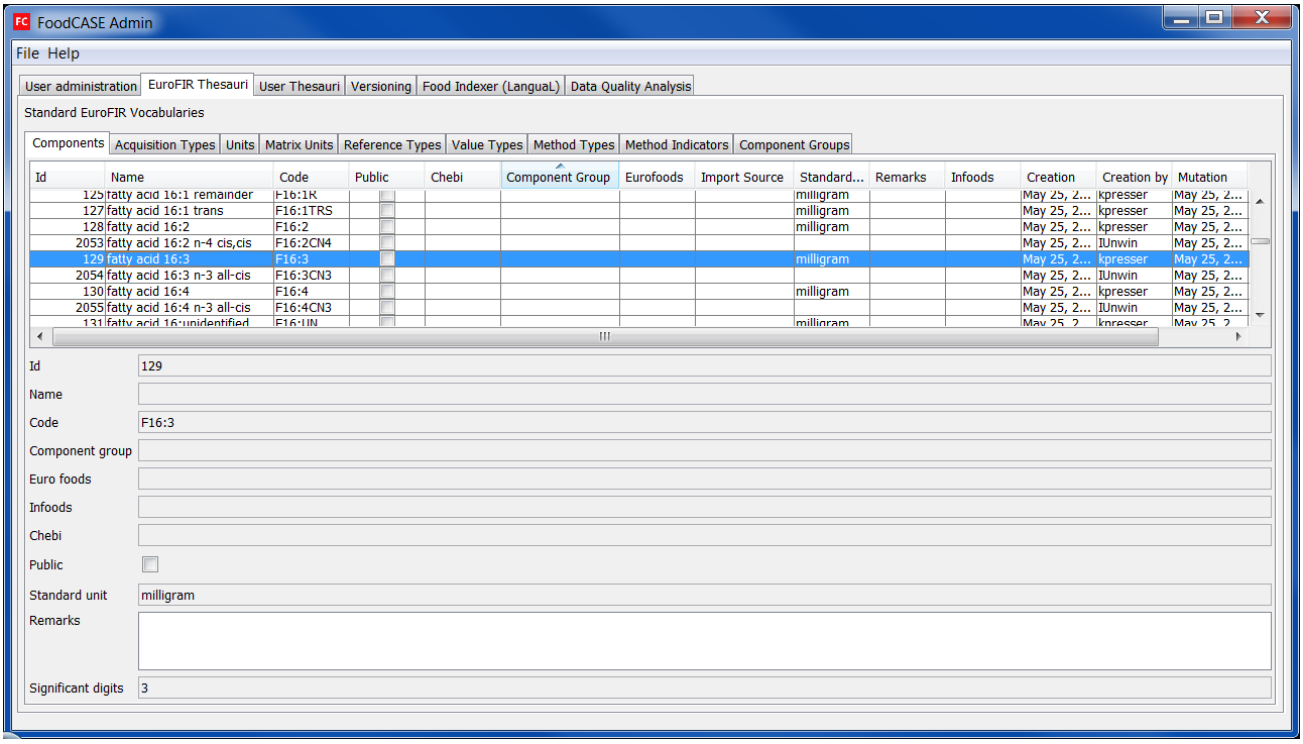

FoodCASE Admin
File Help
User administration
EuroFIR Thesauri
User Thesauri
Versioning
Food Indexer (LanguaL)
Data Quality Analysis
Standard EuroFIR Vocabularies
Components
Acquisition Types
Units
Matrix Units
Reference Types
Value Types
Method Types
Method Indicators
Component Groups
Id
Name
Code
Public
Chebi
Component Group
Eurofoods
Import Source
Standard...
Remarks
Infoods
Creation
Creation by
Mutation
127 fatty acid 16:1 trans F16:1TRS milligram May 25, 2... kpresser May 25, 2...
128 fatty acid 16:2 F16:2 milligram May 25, 2... kpresser May 25, 2...
2053 fatty acid 16:2 n-4 cis,cis F16:2CN4 May 25, 2... IUnwin May 25, 2...
129 fatty acid 16:3 F16:3 milligram May 25, 2... kpresser May 25, 2...
2054 fatty acid 16:3 n-3 all-cis F16:3CN3 May 25, 2... IUnwin May 25, 2...
130 fatty acid 16:4 F16:4 milligram May 25, 2... kpresser May 25, 2...
2055 fatty acid 16:4 n-3 all-cis F16:4CN3 May 25, 2... IUnwin May 25, 2...
Id 129
Name
Code F16:3
Component group
Euro foods
Infoods
Chebi
Public
Standard unit milligram
Remarks
Significant digits 3

Figure 6.3

## 6.3.1 Components

It is a list of EuroFIR component identifiers with codes and recommended measure units. The tab includes space for recording complementary Chebi, Eurofoods and INFOODS component codes.

Only values for components ticked for "Public" will be automatically exported for publishing, e.g. on a website (Figure 6.3.1). The thesaurus is in read-only mode.

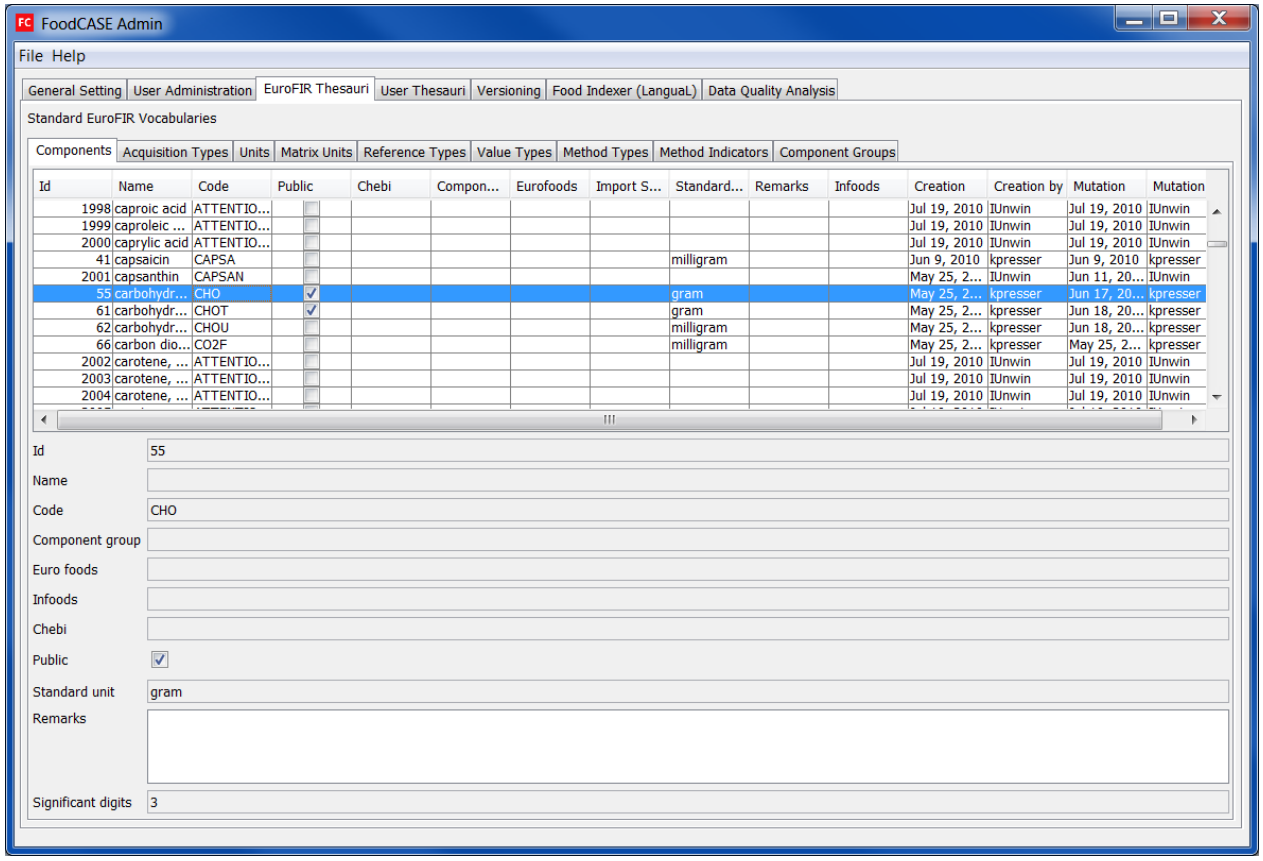



Figure 6.3.1

## 6.3.2 Acquisition Types

It is a EuroFIR thesaurus of acquisition types for indication from where information was acquired (Figure 6.3.2). The thesaurus is in read-only mode.

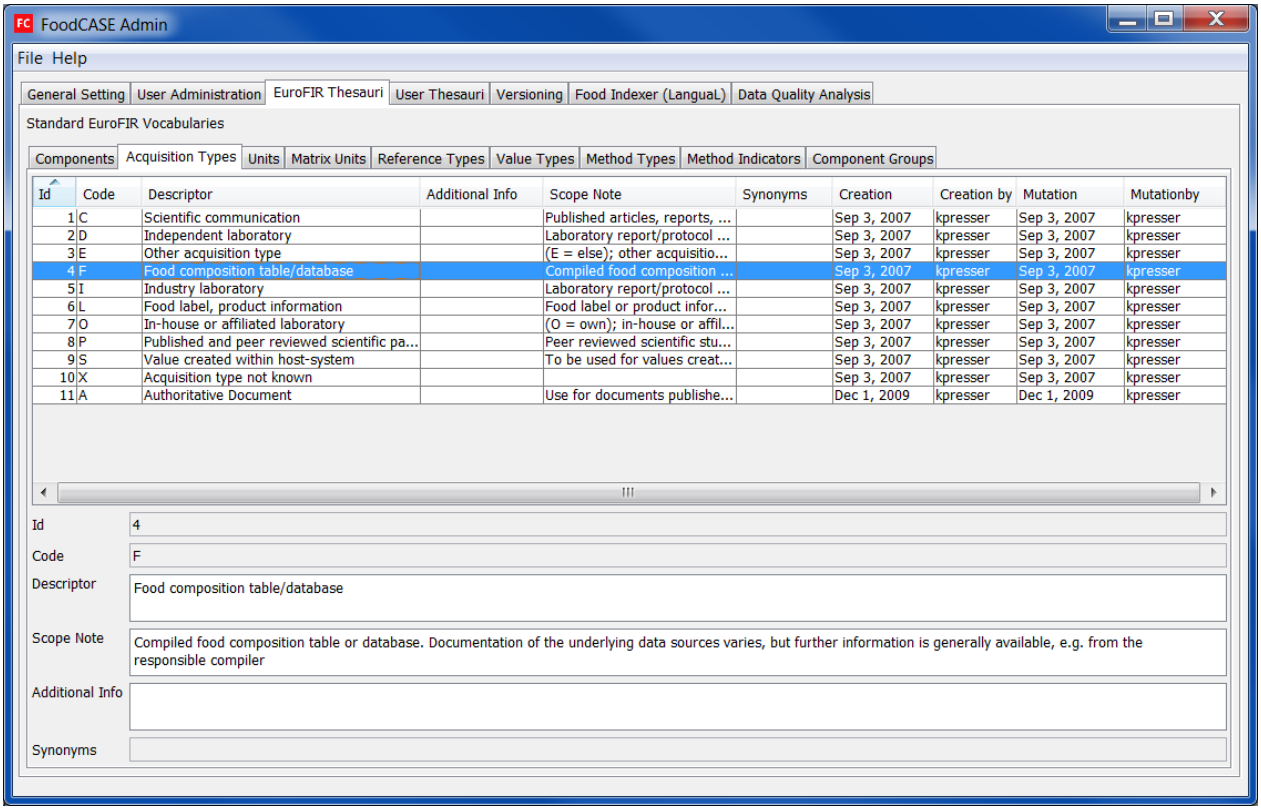



Figure 6.3.2

## 6.3.3 Units

It is a EuroFIR thesaurus of measure units with additional information and scope notes that enable users apply the descriptors properly for data documentation (aggregation and recipe calculation).

In addition, the thesaurus includes overview of additional units added by compilers in the User Thesauri register (in the Units tab) (Figure 6.3.3).

The columns "*Is For Value*" and "*Is For Cooking*" indicates level at which unit can be applied. Application for value means that unit can be used for expression of component content. Application for cooking means that unit can be used for defining amounts of ingredients in recipe calculation.

The last column entitled "*Editable*" indicates which units are default (defined by EuroFIR) and which are added by compilers themselves. User can not remove or add tick to an EuroFIR unit. Units added by compilers can be set either accessible for modification or blocked. Tick in the field means that the unit is modifiable. Editable units can be modified in User Thesauri register. Changes can be seen after closing and reopening the application.

However, this tab is in read-only mode.

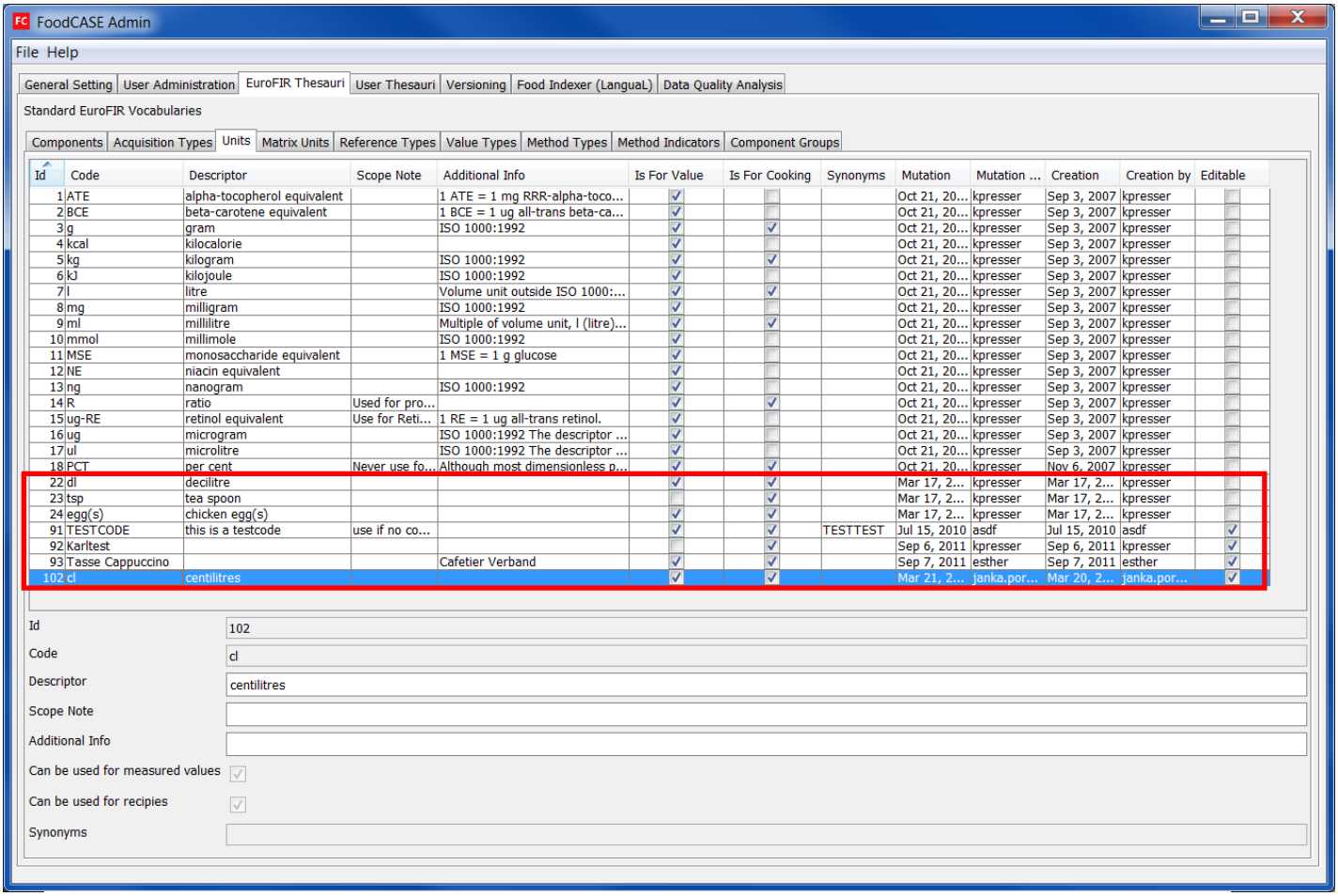



Figure 6.3.3: Users added own descriptors – highlighted in red rectangle

## 6.3.4 Matrix Units

It is a EuroFIR thesaurus of matrix units, which is used to express mass quantity for which composition is given.

Tick in the field of the column "*For aggregation*" indicates in which matrix, foods, which are going to be aggregated, may be expressed (Figure 6.3.4). This tab is in read-only mode.

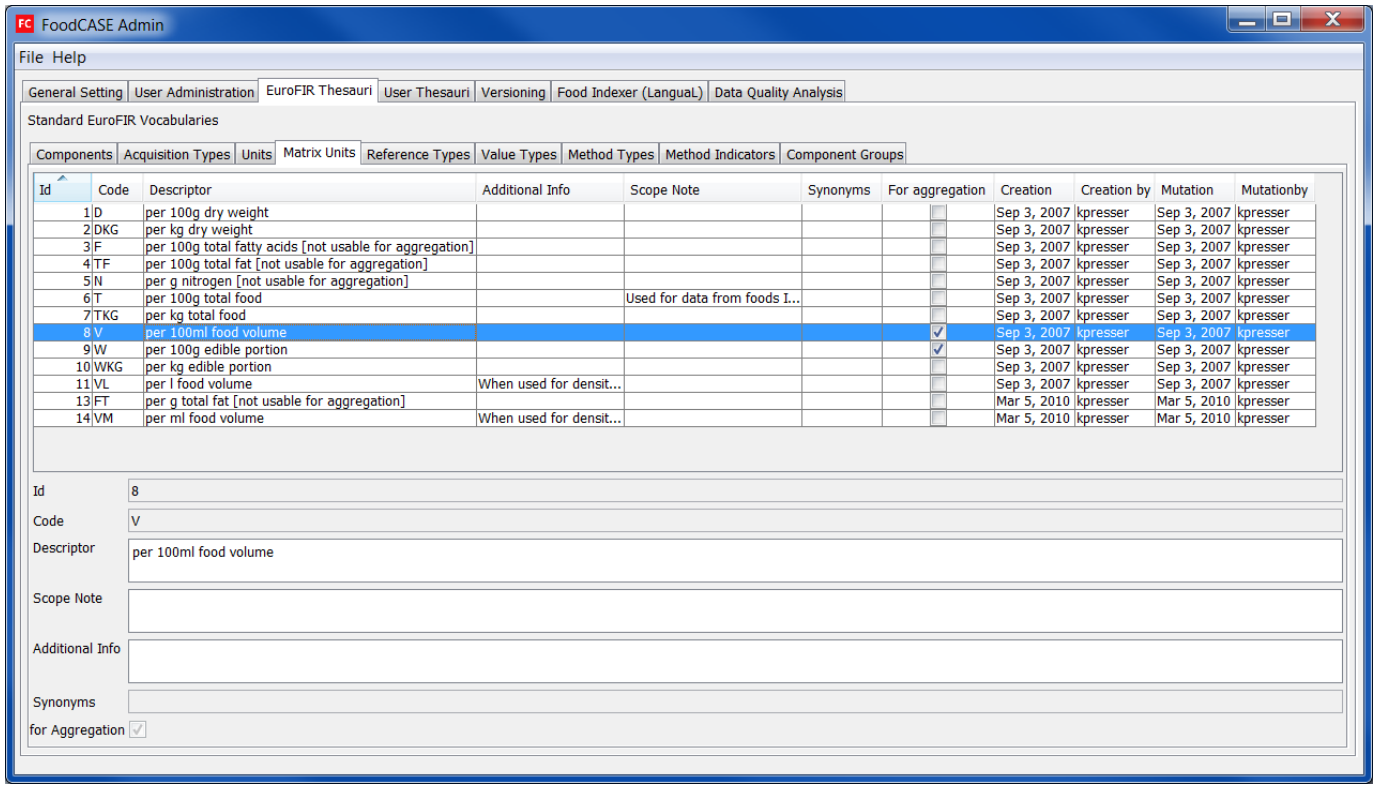



Figure 6.3.4

## 6.3.5 Reference Types

It is a EuroFIR thesaurus providing kinds of sources for food composition information (Figure 6.3.5). This tab is in read-only mode.

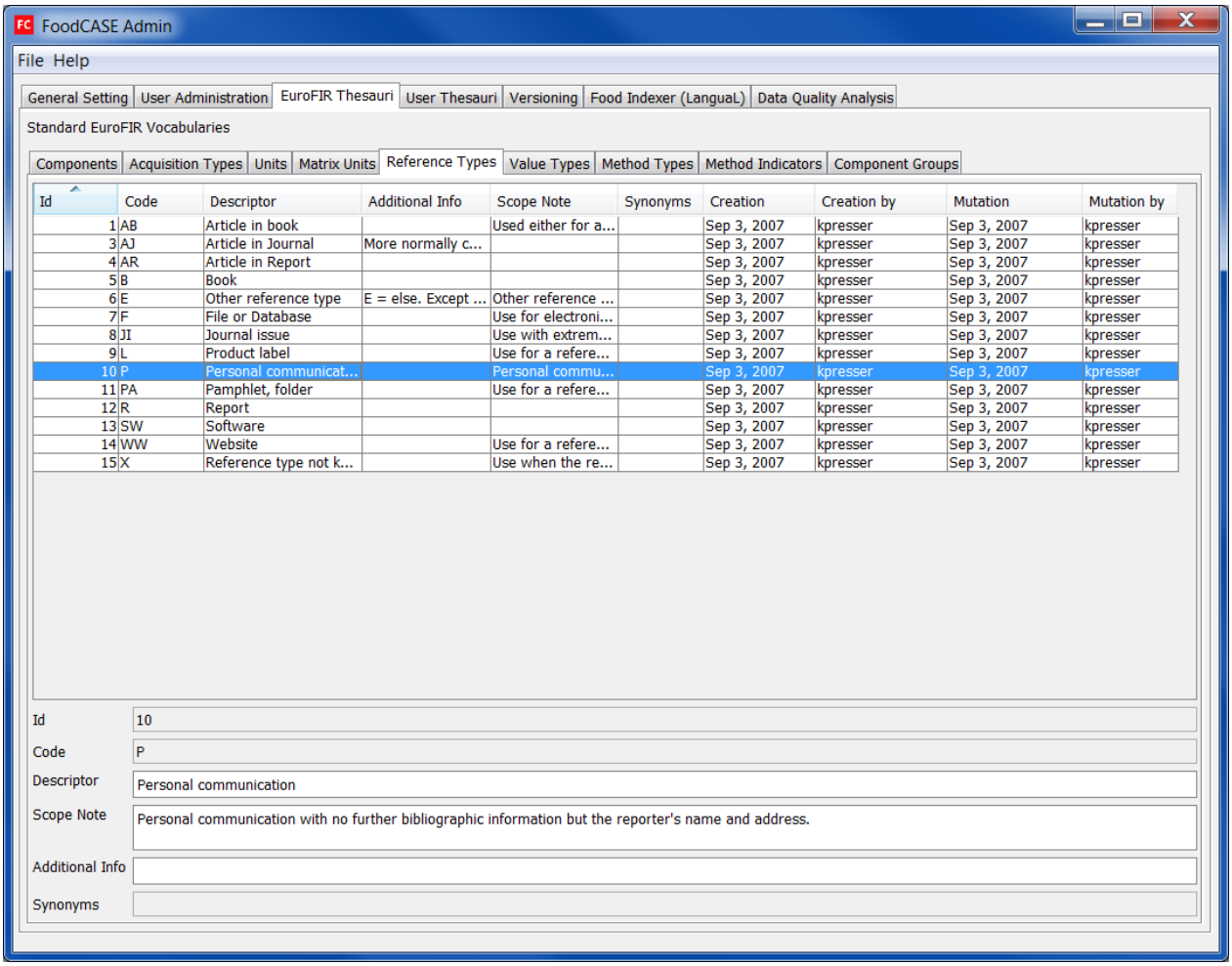



Figure 6.3.5

## 6.3.6 Value Types

It is a EuroFIR thesaurus of value types, which represent character of component value (Figure 6.3.6). This tab is in read-only mode.

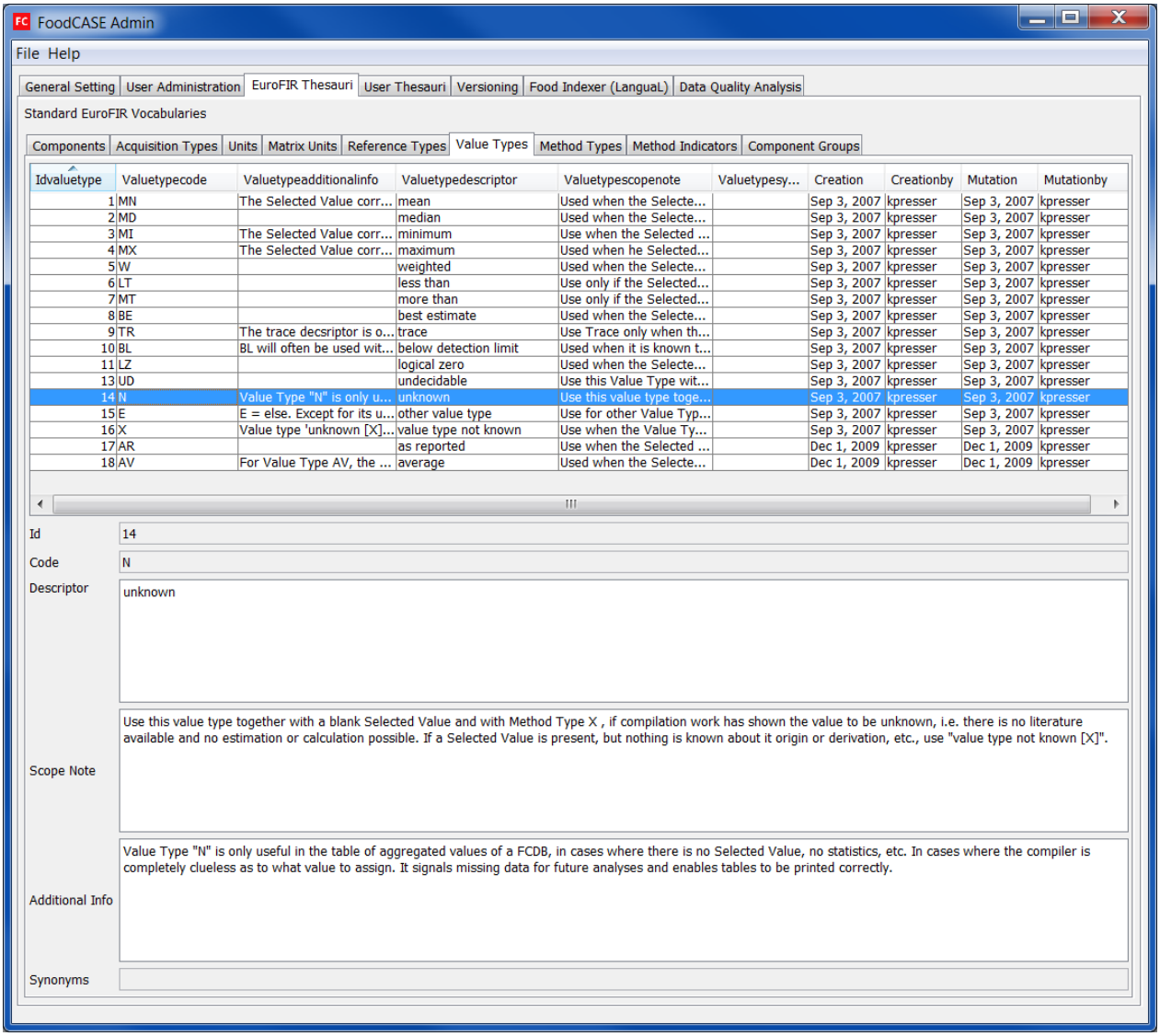



Figure 6.3.6

## 6.3.7 Method Types

It is a EuroFIR thesaurus of method types, which indicates procedure, used for obtaining component value (Figure 6.3.7). This tab is in read-only mode.

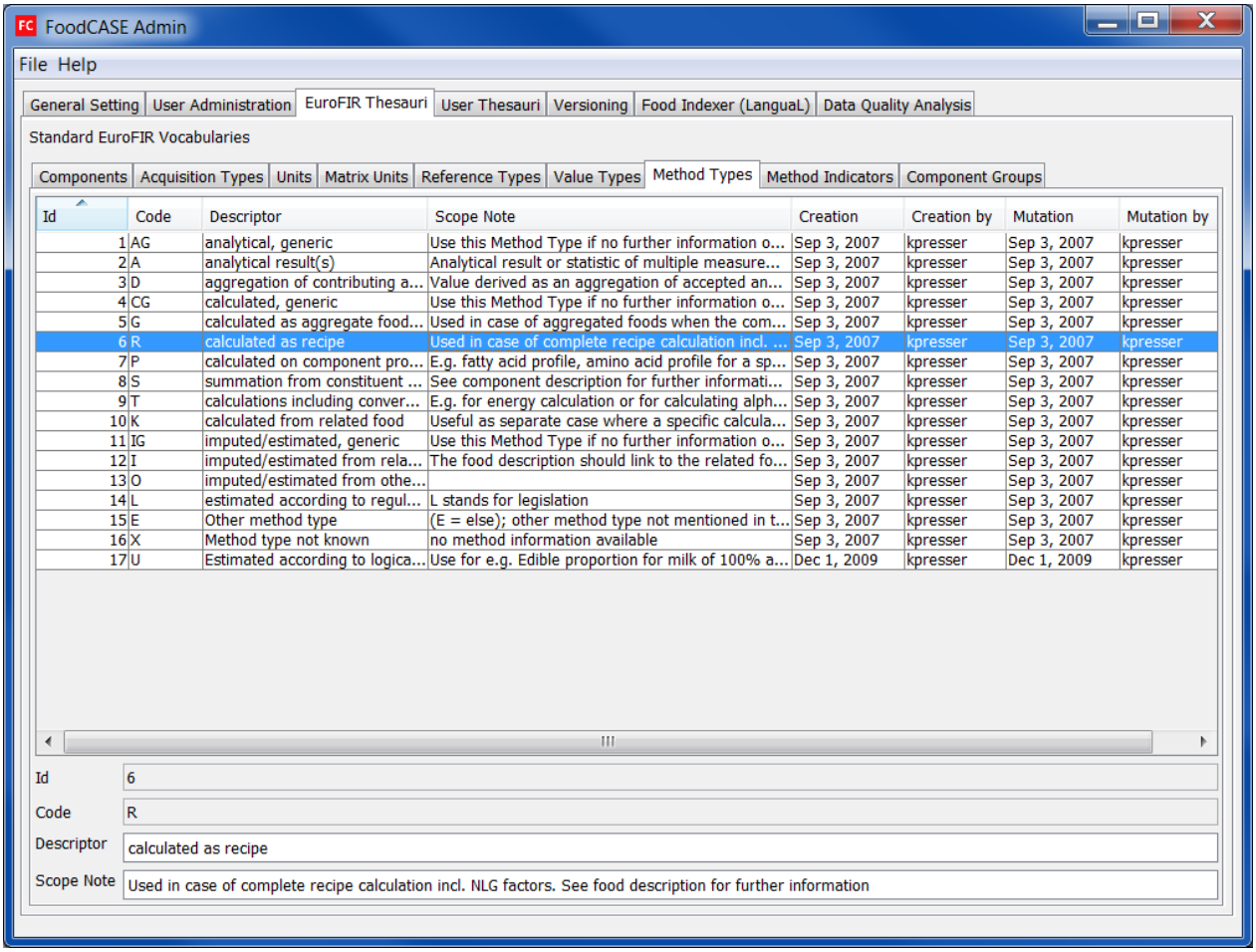



Figure 6.3.7

## 6.3.8 Method Indicators

It is a EuroFIR thesaurus of method indicators extended with user method indicators which help assign component value with particular analytical or calculation procedure.

The column *"Formula"* contains a formula in a given syntax, so that FoodCASE is able to interpret this formula and calculate the value in the given unit. The column "*Group*" gives information to which component category (group) belongs component for which indicator is stated (Figure 6.3.8-1). The "*Usage Notes*" presents extra condition (information) for contributing components used in a formula (e.g. Figure 6.3.8-2).

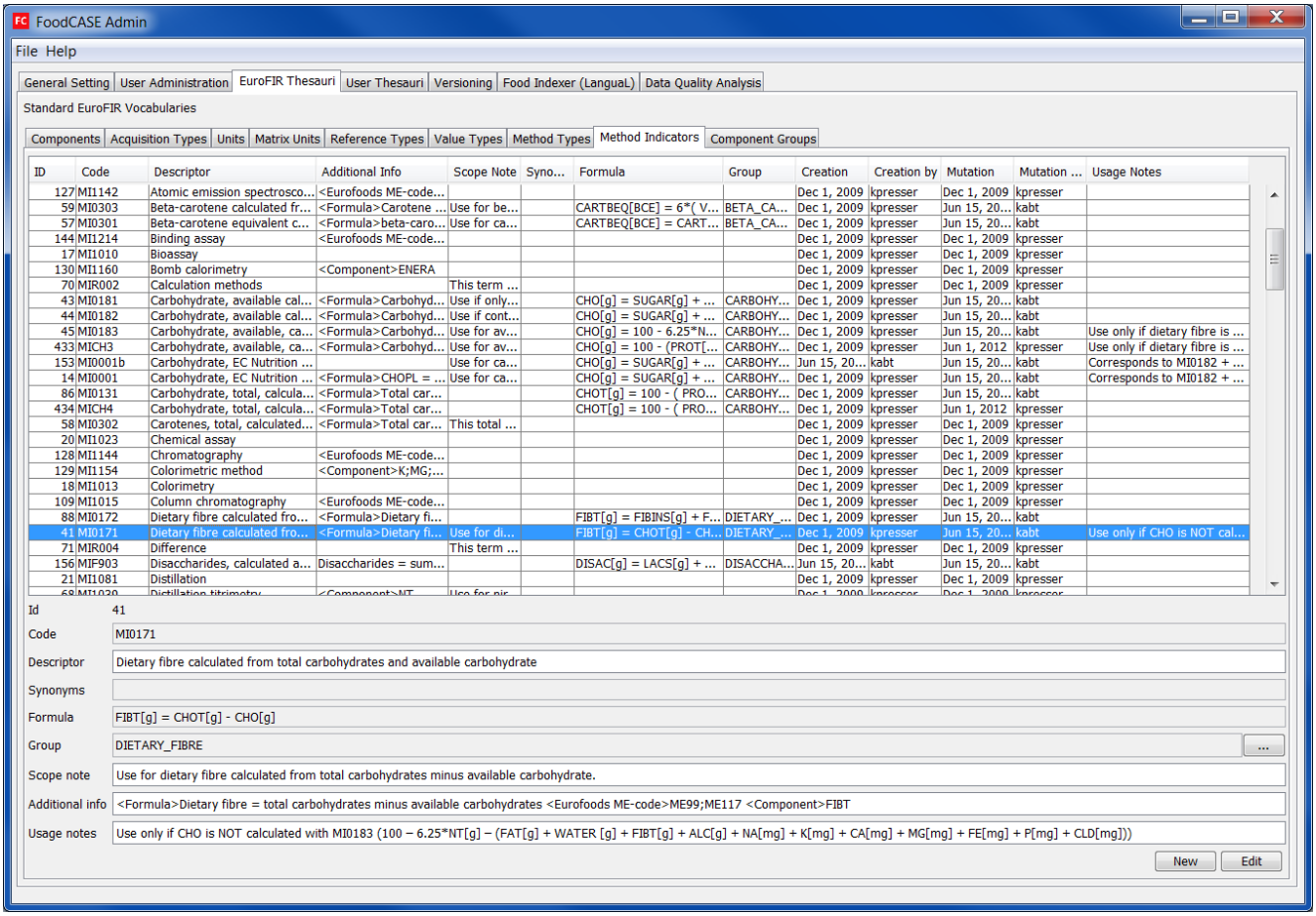



Figure 6.3.8-1

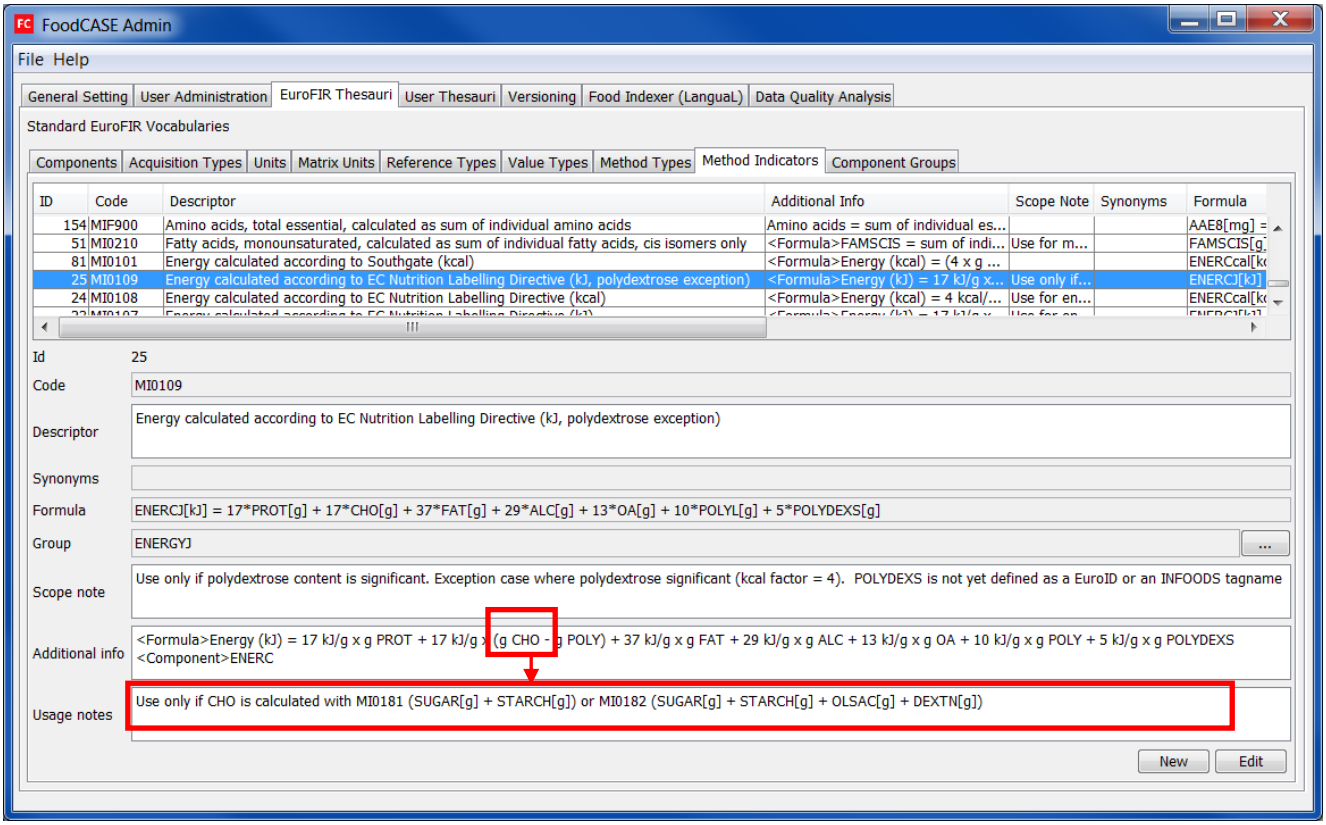



Figure 6.3.8-2

## 6.3.9 Component Groups

It is a list of EuroFIR component groups. Column "*Parent*" indicates superior group (Figure 6.3.9).

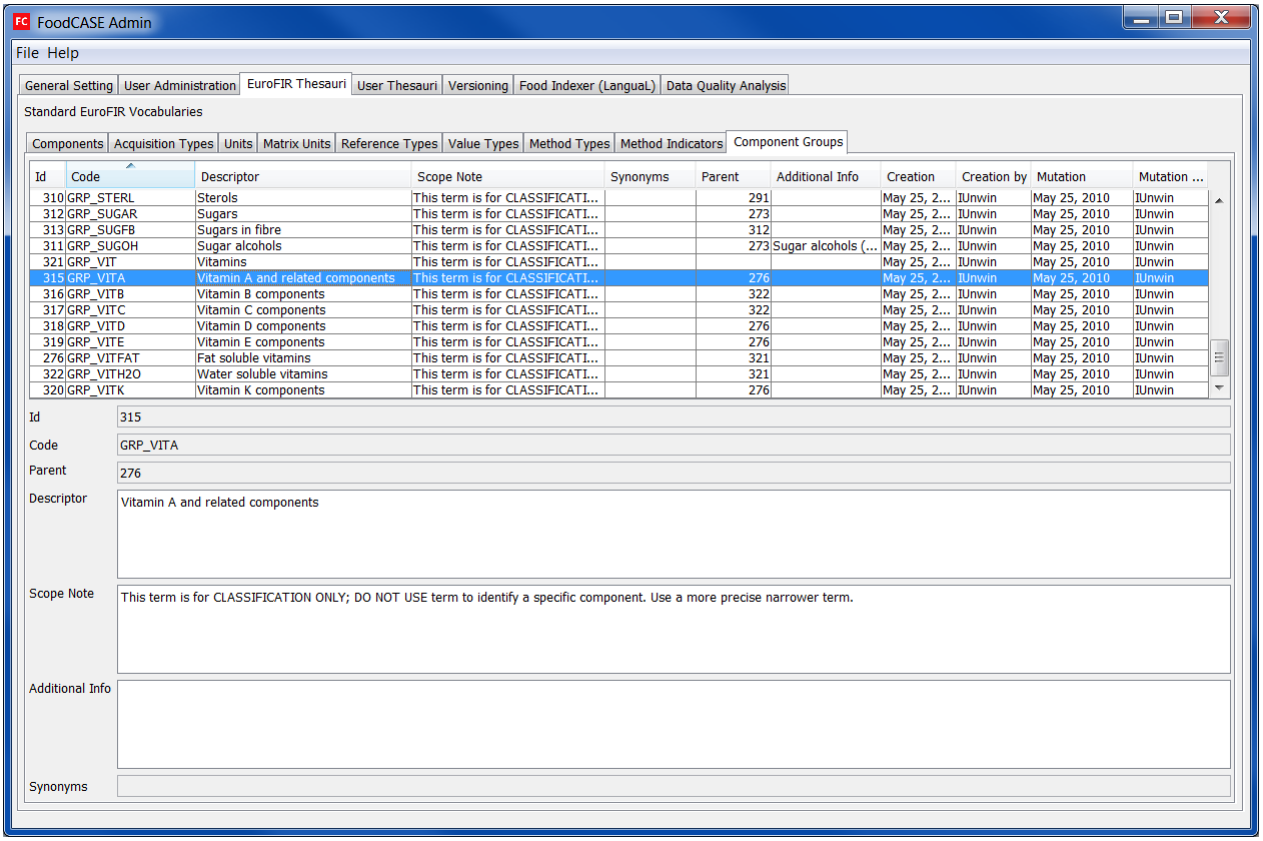



Figure 6.3.9

## 6.4 User Thesauri

It is a register for additional thesauri. The title itself evokes that user can modify them by own. Those are Markers, Unit Conversions, Recipe Preparation Methods, Units and Method Indicator Defaults.

## 6.4.1 Markers

Markers are indexing terms used for food or component value identification. Here, in FoodCASE Administration Tool, they can be defined by user. The tab for markers is split into two sections. The left part is for single level database and the right is for the aggregated database (including recipes). Altogether, there are four entities for which markers can be defined: single food, single value, aggregated food (including recipes) and aggregated value (including values calculated as recipes) (Figure 6.4.1.1-1). These four entities are blocked for deletion. Each entity contains tree-structured groups of markers (e.g. main group – record status, subgroups – partial, checked, completed, deleted); however, it is up to users how they organise their markers.

### 6.4.1.1 Defining Markers

1. Go to the User Thesauri register and select the Markers tab (Figure 6.4.1.1-1)
2. By left click select a marker or marker group/sub-group to which you want add a new marker. Selected marker or group displays in the field *Name* (Figure 6.4.1.1-2)
3. Click the **Add** button at the bottom of the particular section to add a new marker. The new item integrates into the selected marker group (Figure 6.4.1.1-3)
4. Rename the *"New Marker"* as you desire in the text field *Name* and fill in description information if relevant (Figure 6.4.1.1-4)
5. Click the **Save** button in the lower right corner to save new marker. As soon as the marker is saved, it can be immediately applied in FoodCASE Compiler Client module (Figure 6.4.1.1-5), however if both applications are open at the same time, Compiler Client must be restarted to consider changes carried out in Administration Tool

*Note: Individual marker turns to group as soon as another tree level is created within this marker (Figure 6.4.1.1-6)*

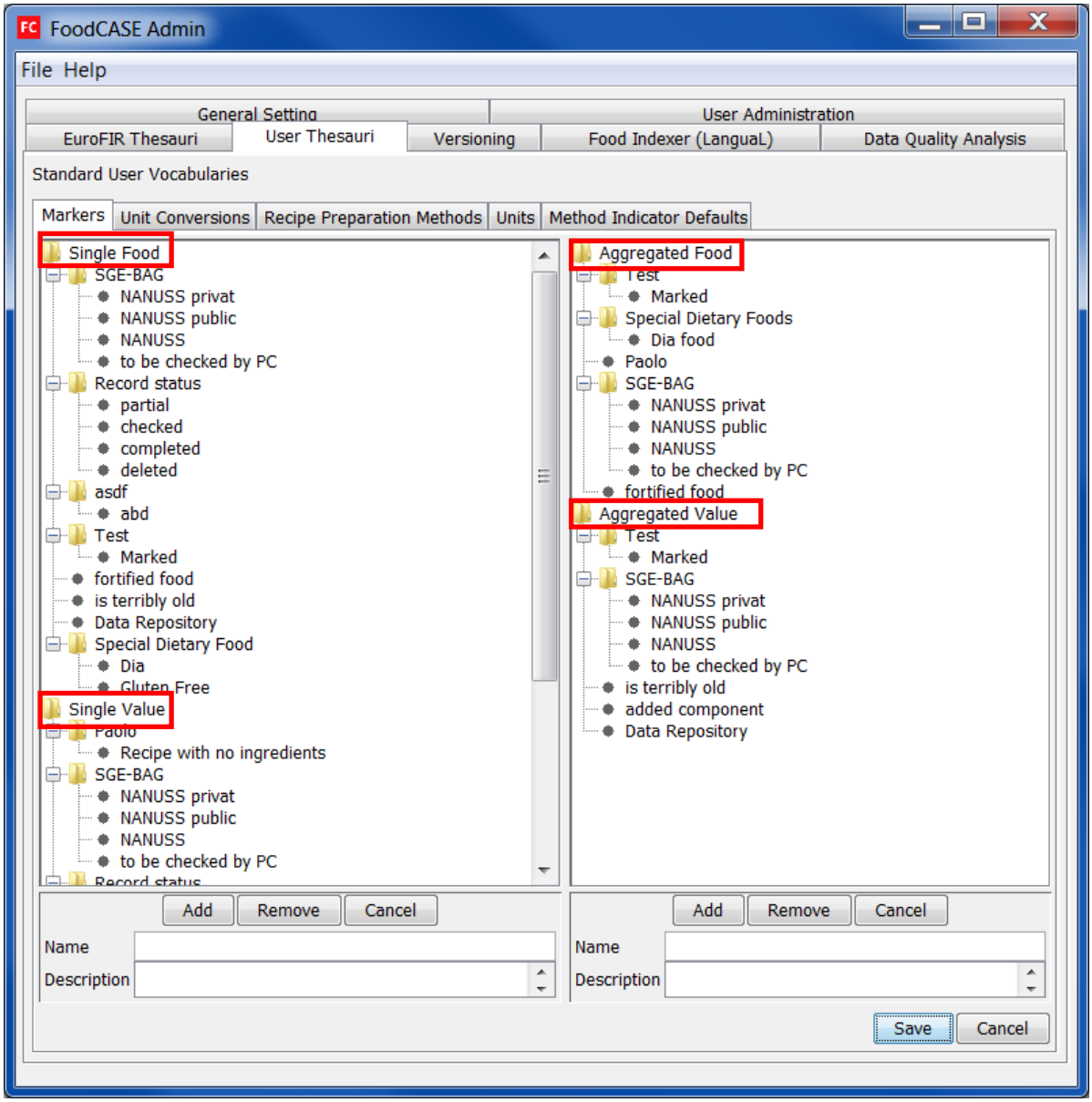



Figure 6.4.1.1-1

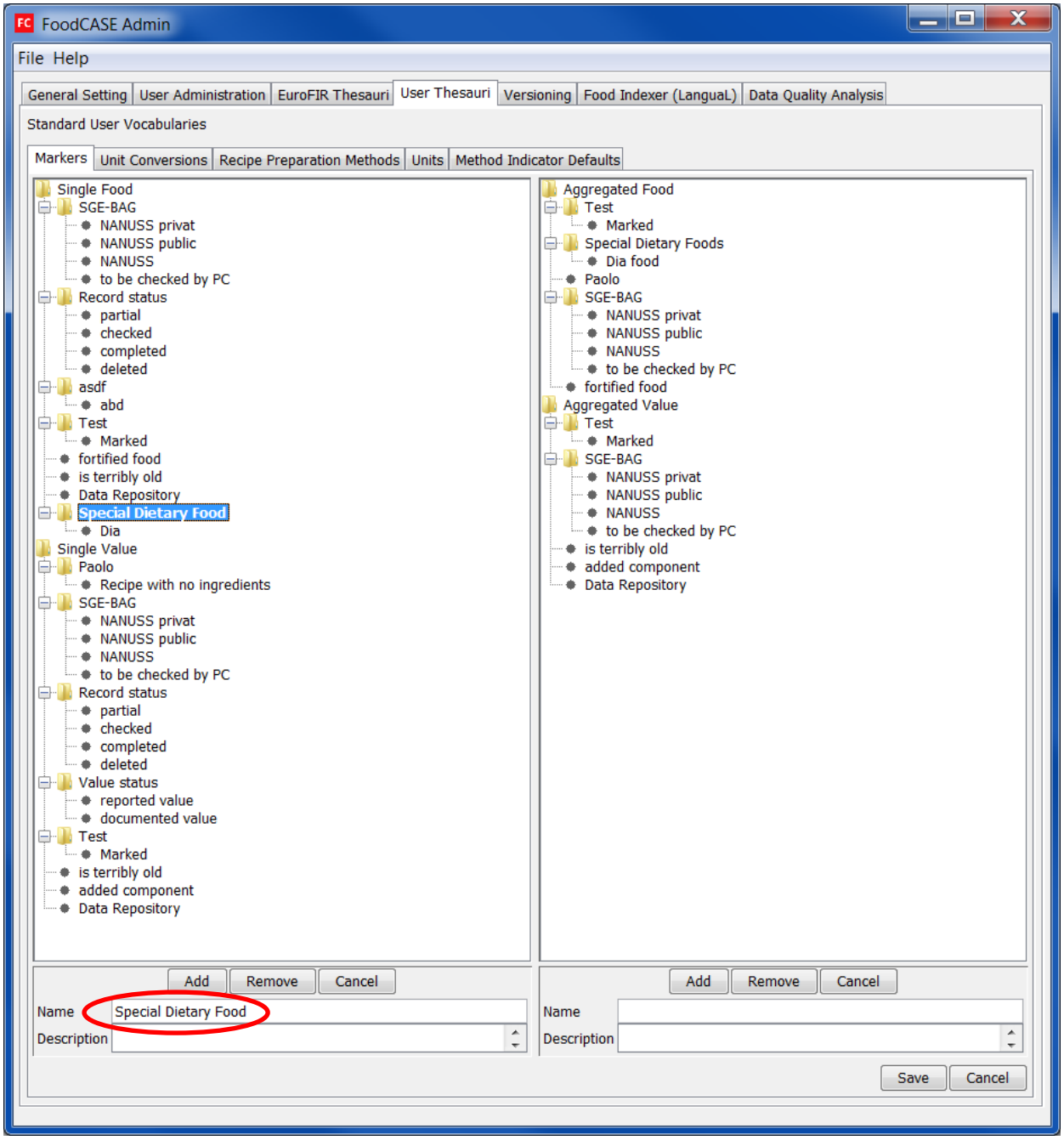



Figure 6.4.1.1-2: Highlighted group displays in the field *Name*

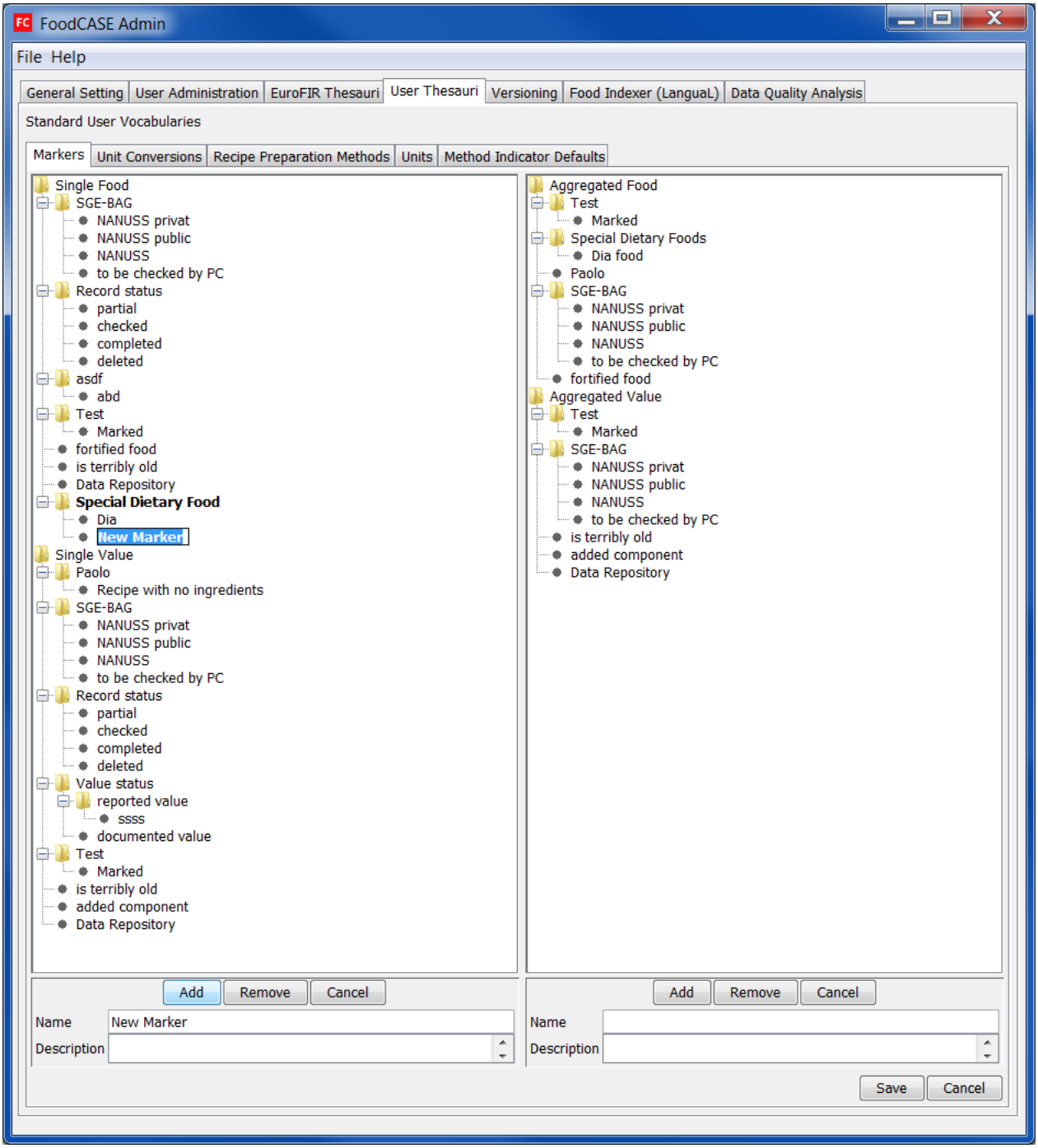



Figure 6.4.1.1-3: New marker integrated into the marker group *Special Dietary Food*

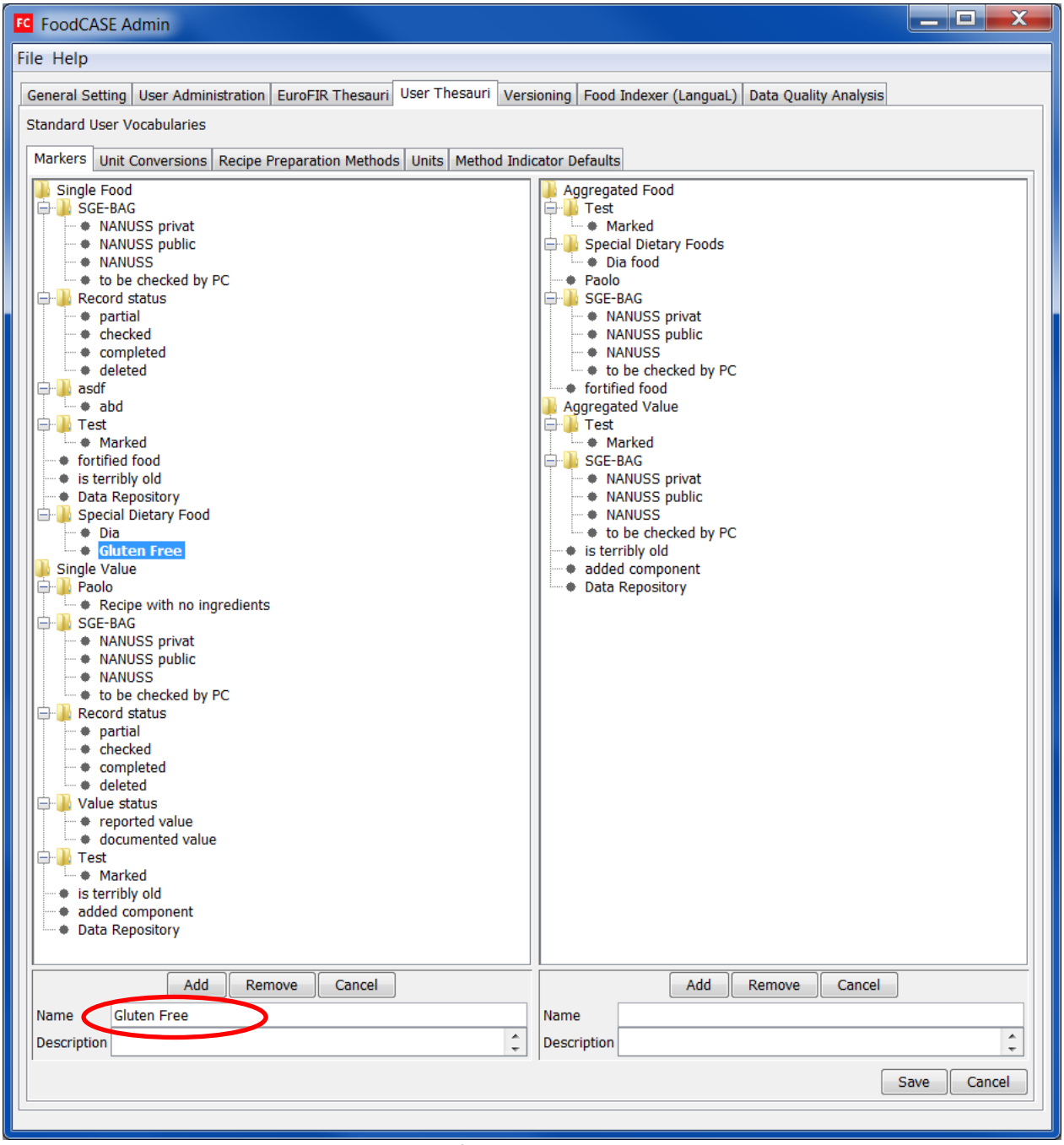



Figure 6.4.1.1-4

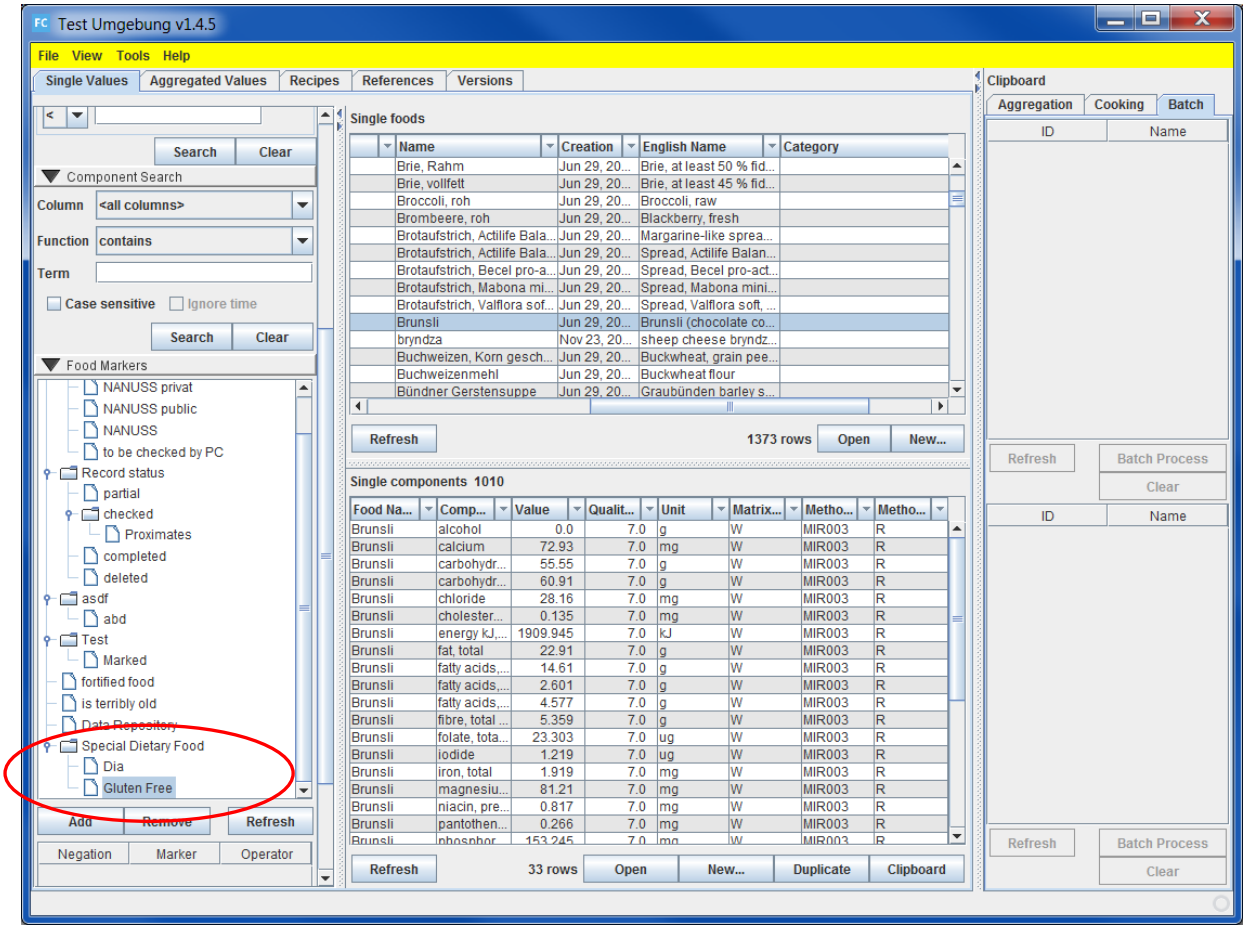



Figure 6.4.1.1-5: New marker can be applied for indexing in Compiler Client module

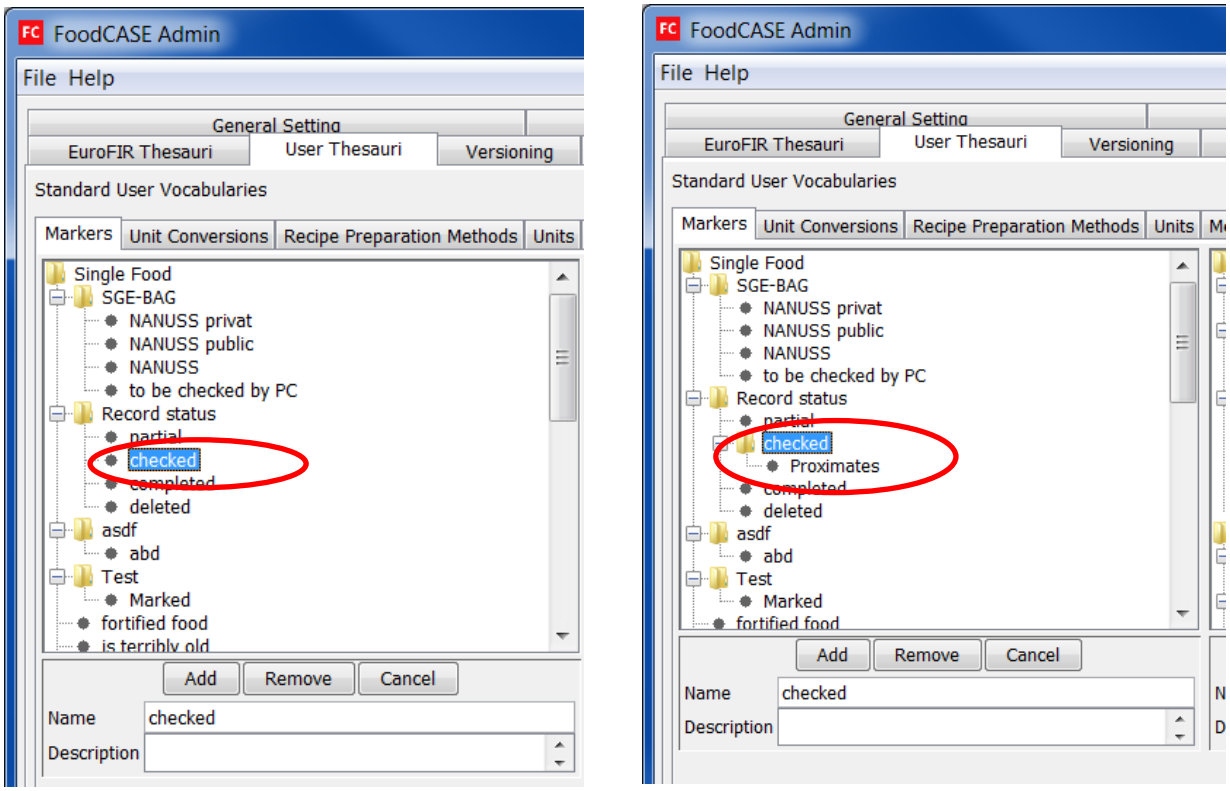



Figure 6.4.1.1-6: Individual marker *("checked")* turns to group as soon as another tree level *("Proximates")* is created within this marker

### 6.4.1.2 Updating Markers

Markers can be modified:

- By left click on a marker and simple rewriting of name in the field *Name*,
- By left click on a marker and moving it to a different position in the marker tree. Moving is possible between single and aggregated level as well.

Any changes must be confirmed by the **Save** button.

Be careful when modifying a marker, which is already used for data identification.

*Note: Any incidental or undesired modifications on markers and changes can be abolished with **Cancel** buttons, however the **Cancel** button is not more active after the **Save** button was used. There are **Cancel** buttons that are specific for single and aggregated sections and the **Cancel** button applicable for the whole tab (in the right lower corner of the tab).*

### 6.4.1.3 Deleting Markers

Markers can be deleted by left click on a marker and using the **Remove** button.

Any changes must be confirmed by the **Save** button.

As soon as a marker is used for data identification, it cannot be deleted and the application notifies user by a message window about how many times it is used (Figure 6.4.1.3).

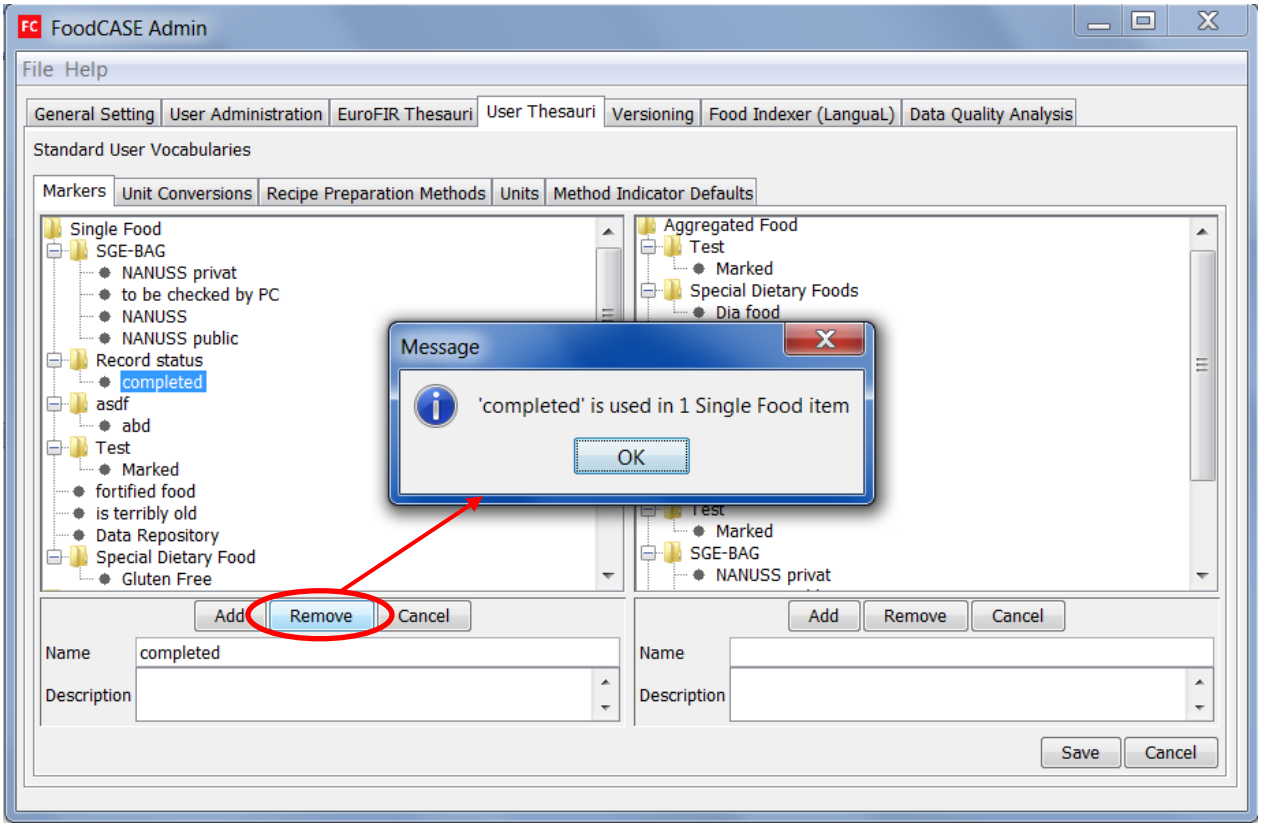



Figure 6.4.1.3

*Note: Any incidental or undesired deletion of markers can be abolished with **Cancel** buttons, however the **Cancel** button is not more active after the **Save** button was used.*
*There are **Cancel** buttons that are specific solely for single and aggregated sections and the **Cancel** button applicable for the whole tab (in the right lower corner of the tab).*

## 6.4.2 Unit Conversions

The Unit Conversions are useful for converting commonly applied household measures, like spoon, cup or egg into standard measure units. When defining a recipe compiler does not need to convert eggs into e.g. grams, just enters number of eggs and the application coverts it into standard measure unit, by using specific conversion factor defined by compiler.

## 6.4.2.1 Defining New Unit Conversion

Before a unit conversion is defined, user must add a source unit into the Units tab in the User Thesauri register (for more details and procedure see chapter *6.4.4 Units*).

**Procedure**

1. Go to the User Thesauri register and select the Unit Conversions tab (Figure 6.4.2.1-1)
2. Click the **New** button to add a new row in the tab (Figure 6.4.2.1-2)
3. Select source and target units from the drop down lists and define conversion multiplier between these units at the bottom of the window
4. Click the **Save** button to store the new conversion (Compiler Client module must be restarted to update units conversion) (Figure 6.4.2.1-3)

*Note: Conversions must be defined carefully, in order they work properly (e.g. spoon converted into grams is not a precise conversion, because foods have different density and spoon different size, more detailed specification is e.g. teaspoon of honey, tablespoon of flour).*

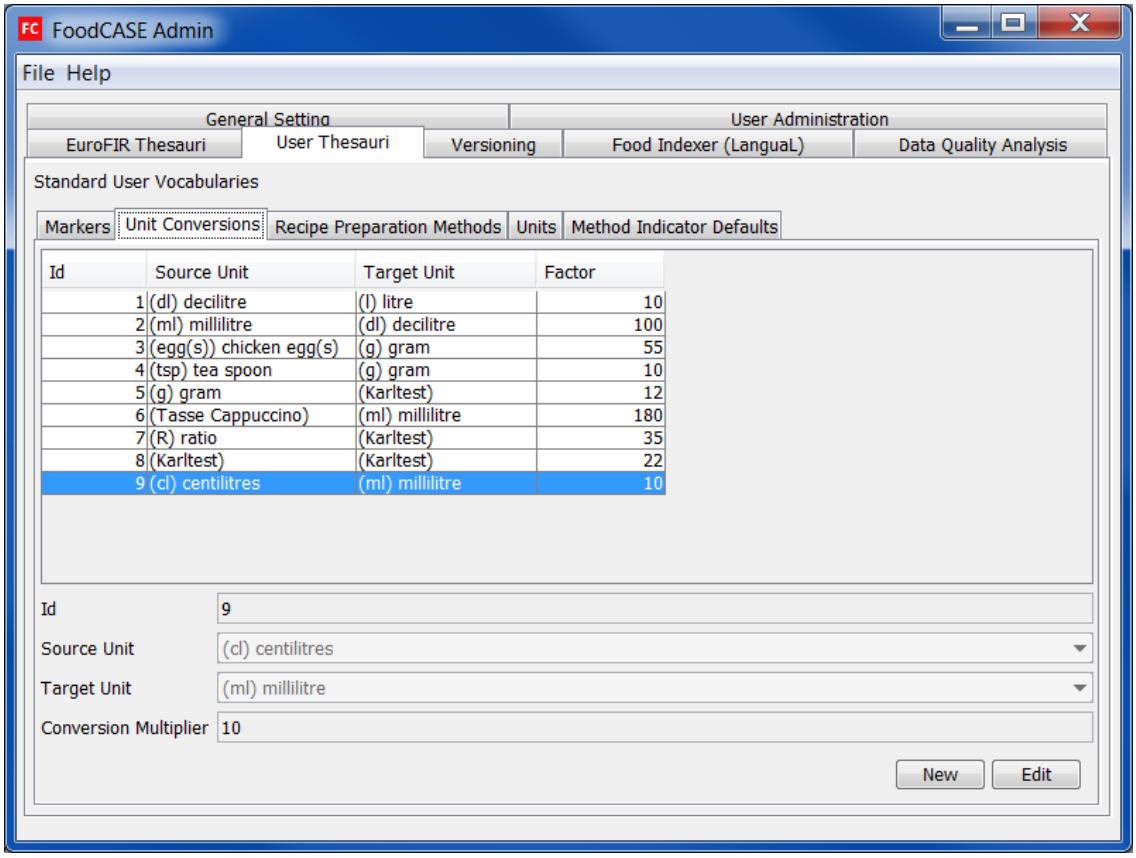



Figure 6.4.2.1-1

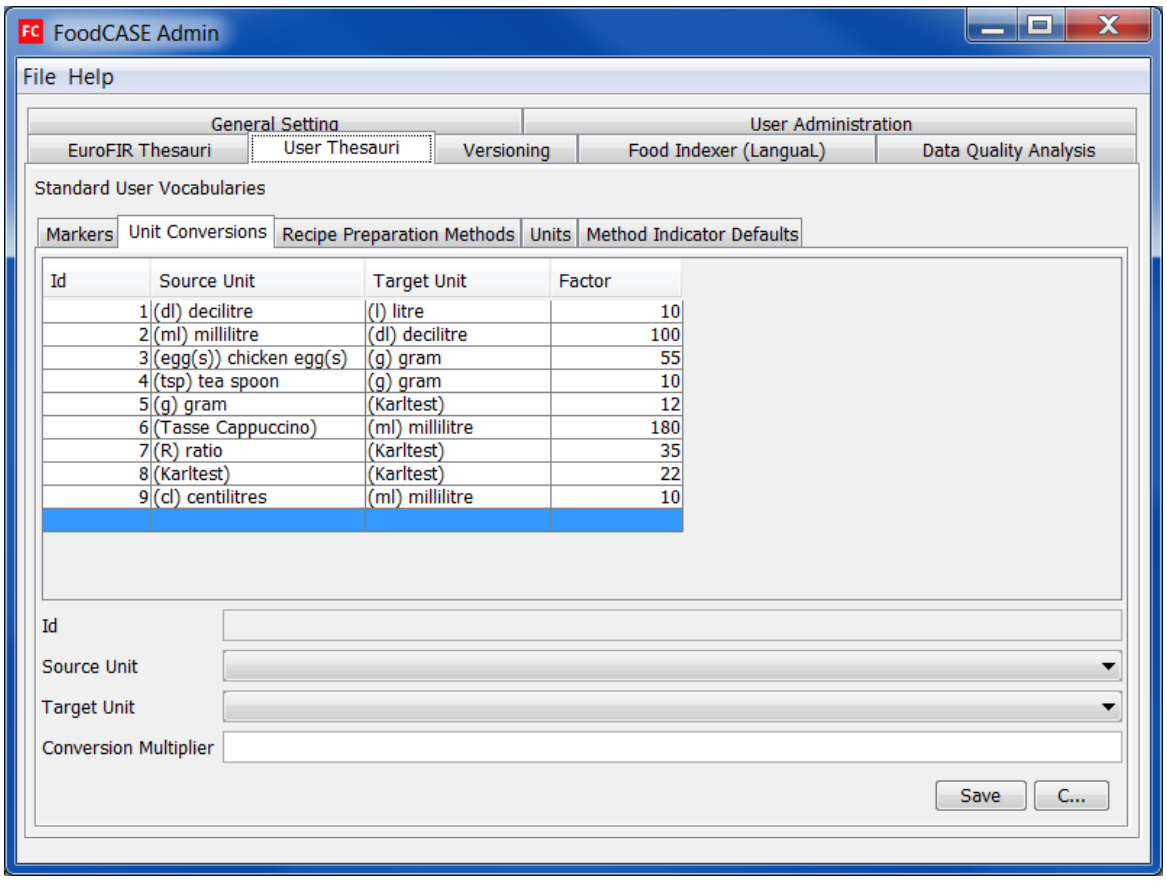



Figure 6.4.2.1-2

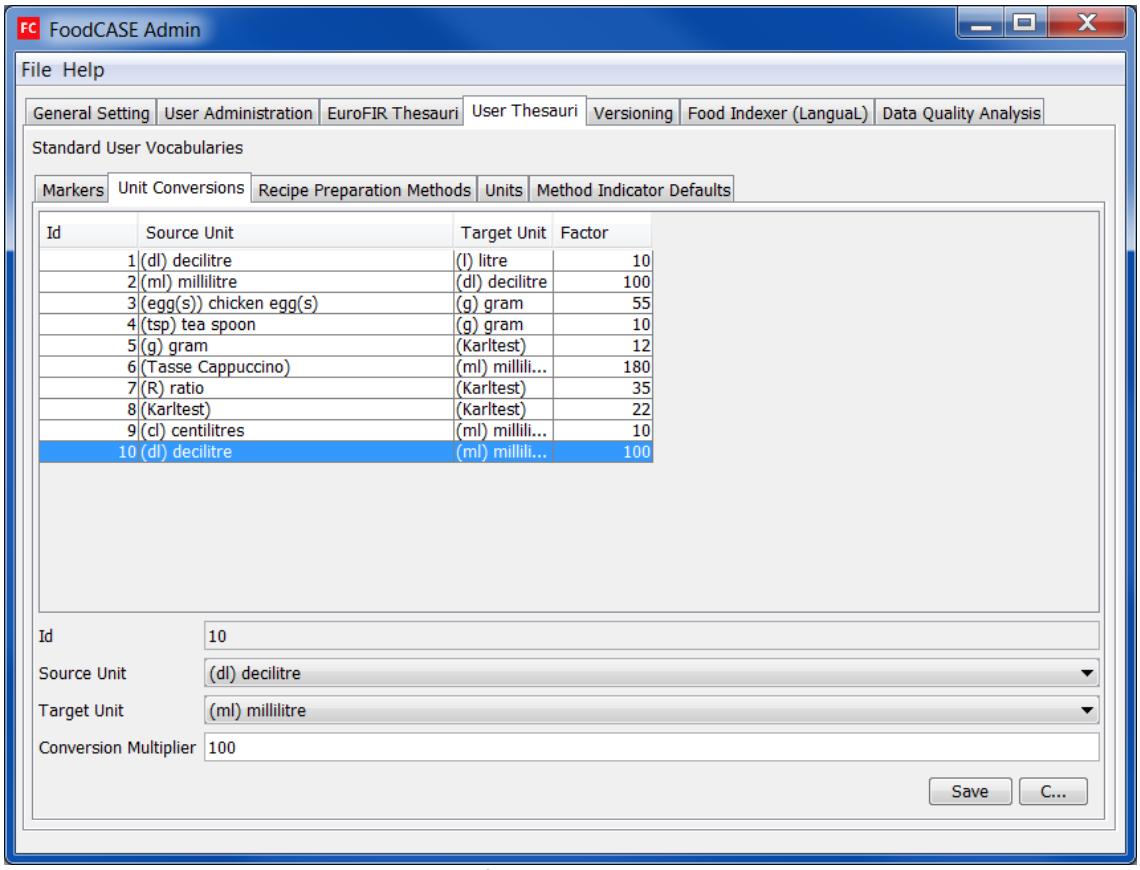



Figure 6.4.2.1-3

## 6.4.2.2 Updating Unit Conversion

1. Go to the User Thesauri register and select the Unit Conversions tab (Figure 6.4.2.2-1)
2. Left click on an item and click the **Edit** button to activate the item for modification
3. Change source and/or target units available in the drop down lists and/or define conversion multiplier between these units (Figure 6.4.2.2-2)
4. Click the **Save** button to store updated information (Compiler Client module must be restarted to update units conversion) (Figure 6.4.2.2-3)

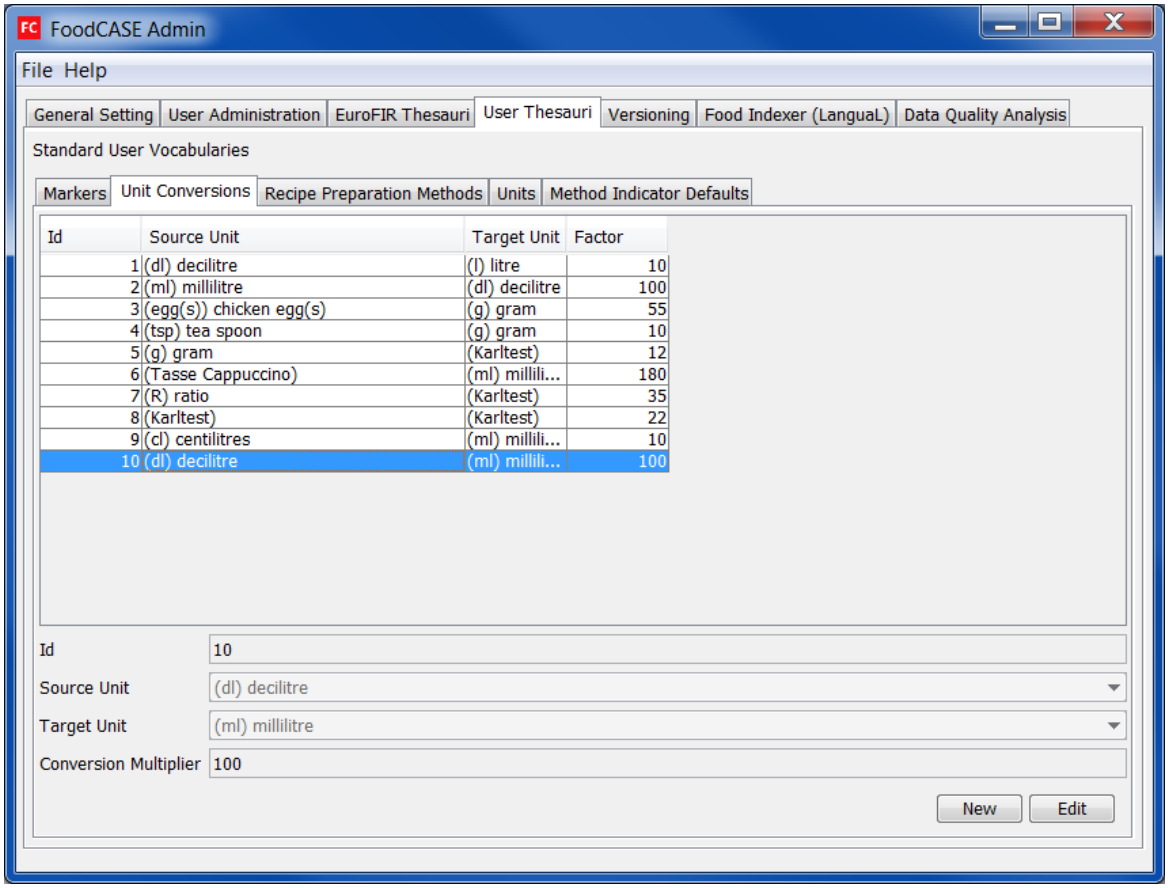



Figure 6.4.2.2-1

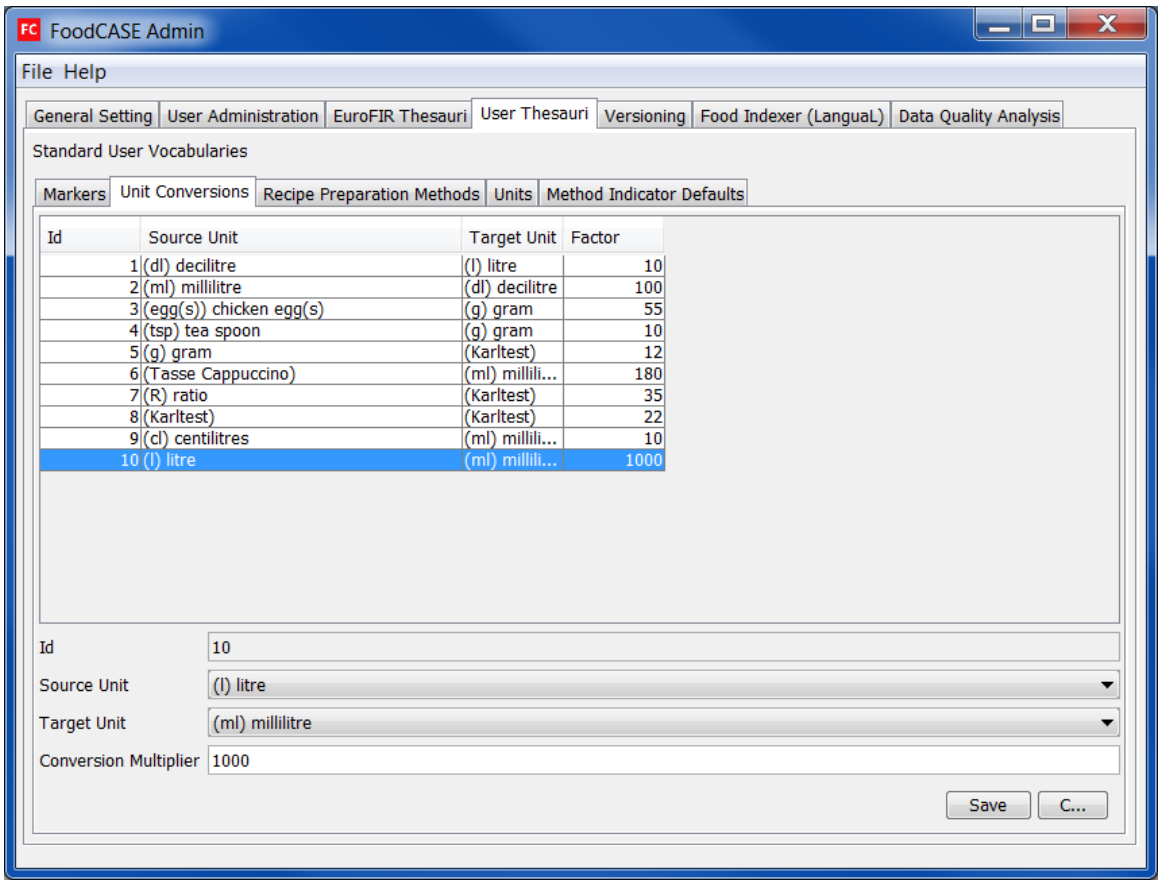



Figure 6.4.2.2-2

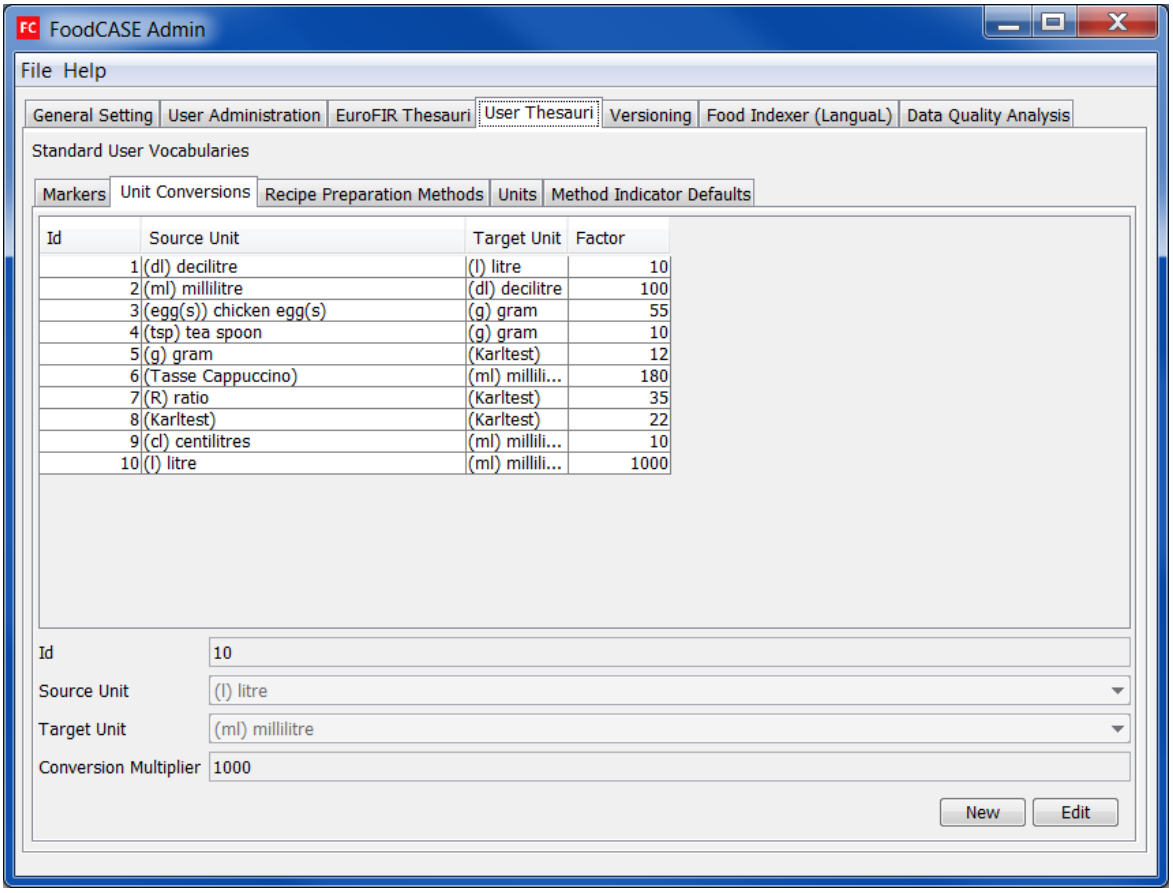



Figure 6.4.2.2-3

## 6.4.3 Recipe Preparation Methods

Recipe Preparation Methods tab (Figure 6.4.3) includes list of cooking methods that can be applied for recipe calculation in Compiler Client.

Here, in Administration Tool user can modify cooking methods. In addition to standardized EuroFIR methods, which are based on facet G in LanguaL, user, can add own cooking methods and its description.

Cooking methods are connected with retention factors and thus when a method is selected; particular retention factors are applied for component values of ingredients during recipe calculation.

*Note: Each food must be correctly classified in the Aggregated food detail window before it is selected for recipe calculation because retention factors are dependent on the cooking method and on the EuroFIR food classification.*

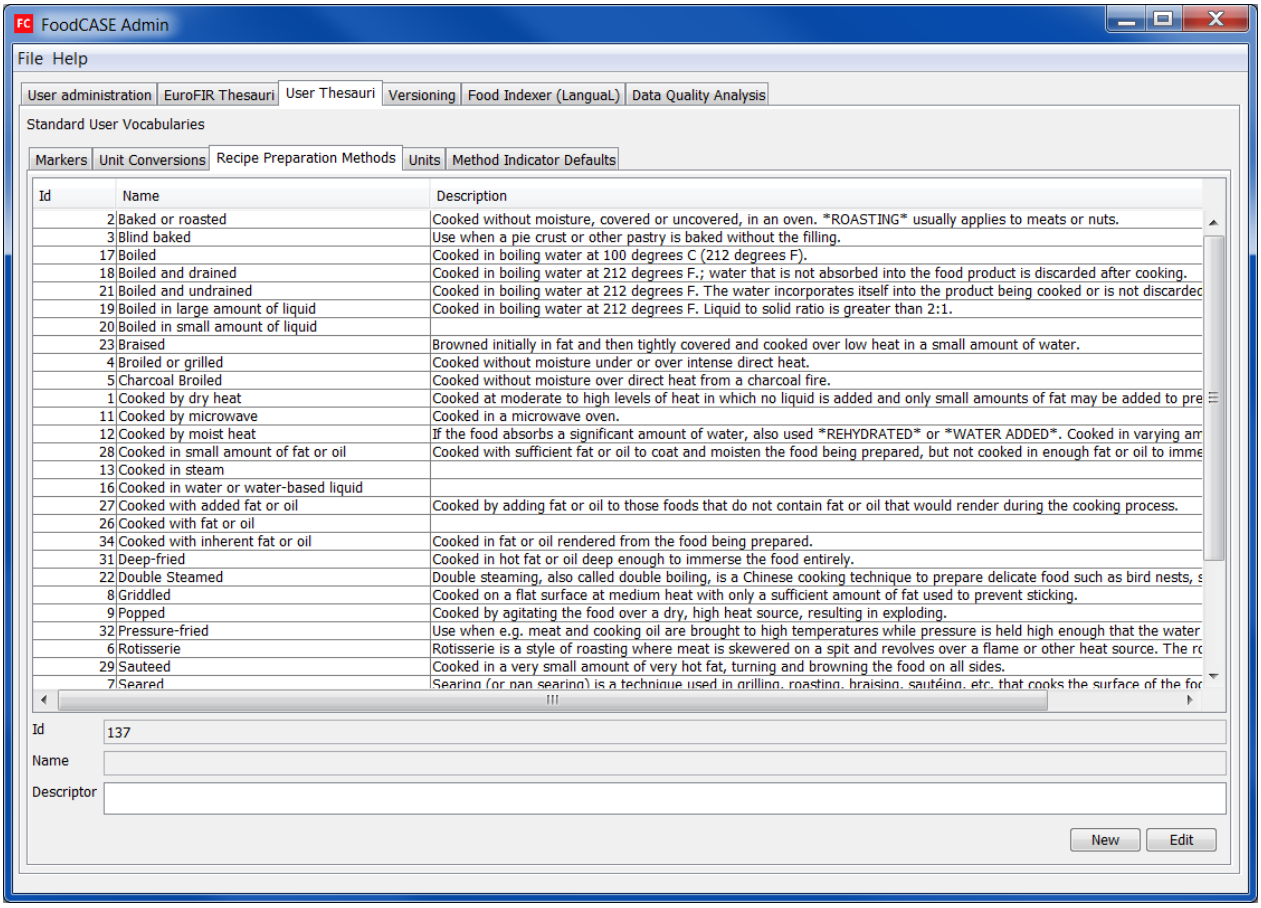



Figure 6.4.3

## 6.4.3.1 Defining New Cooking Method

1. Go to the User Thesauri register and select the Recipe Preparation Methods tab (Figure 6.4.3)
2. Click the **New** button to add a new row in the tab (Figure 6.4.3)
3. Fill in name and description of a cooking method
4. Click the **Save** button to save the new cooking method (Compiler Client module must be restarted to update list of cooking methods)

## 6.4.3.2 Updating Cooking Method

1. Go to the User Thesauri register and select the Recipe Preparation Methods tab (Figure 6.4.3)
2. Left click on an item and click the **Edit** button to activate the item for modification
3. Change the cooking method (Figure 6.4.3.2)
4. Click the **Save** button to save the change on the cooking method (Compiler Client module must be restarted to update list of cooking methods)

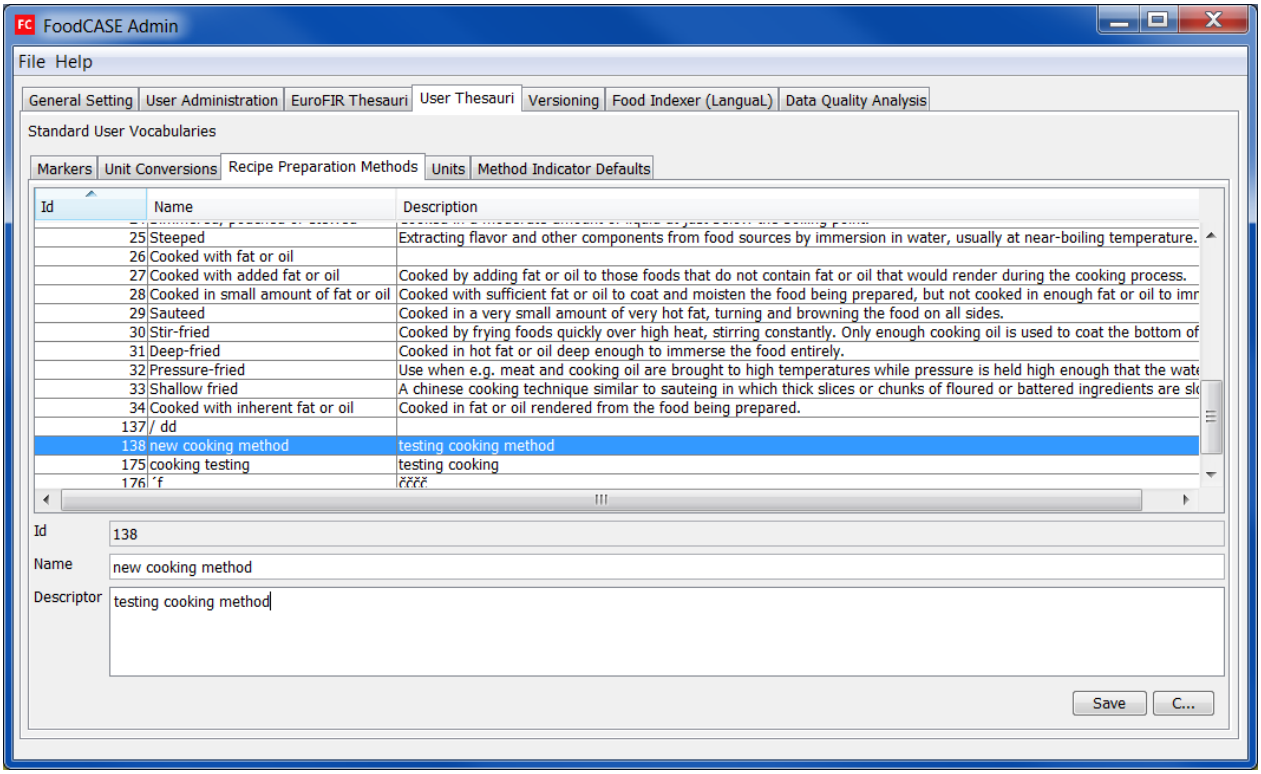



Figure 6.4.3.2

## 6.4.4 Units

This tab is used for defining own measure units. It can be either rare measure unit (e.g. centilitres) or household measure (e.g. spoon, cup of tea) (Figure 6.4.4). Subsequently one can use Unit Conversions tab to define conversion factor between specific unit and EuroFIR standardized measure units (see chapter *6.4.2 Unit Conversions*).

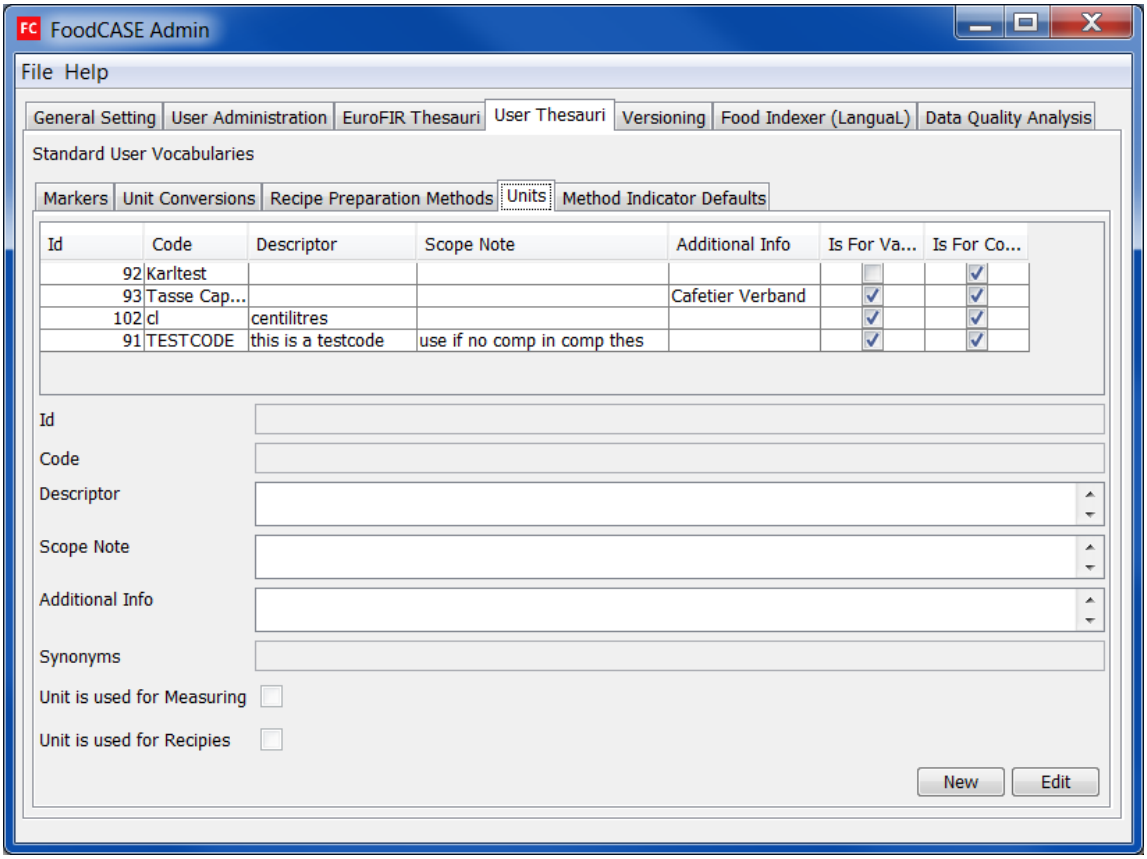



Figure 6.4.4

## 6.4.4.1 Defining New Unit

1. Go to the User Thesauri register and select the Unit tab (Figure 6.4.4)
2. Click the **New** button to add a new row in the tab (Figure 6.4.4.1-1)
3. Define new unit and specify for what purpose it will be applied (for value and/or for cooking) (Figure 6.4.4.1-2)
4. Click the **Save** button to save the new unit (Compiler Client must be restarted to update list of units) (Figure 6.4.4.1-3)

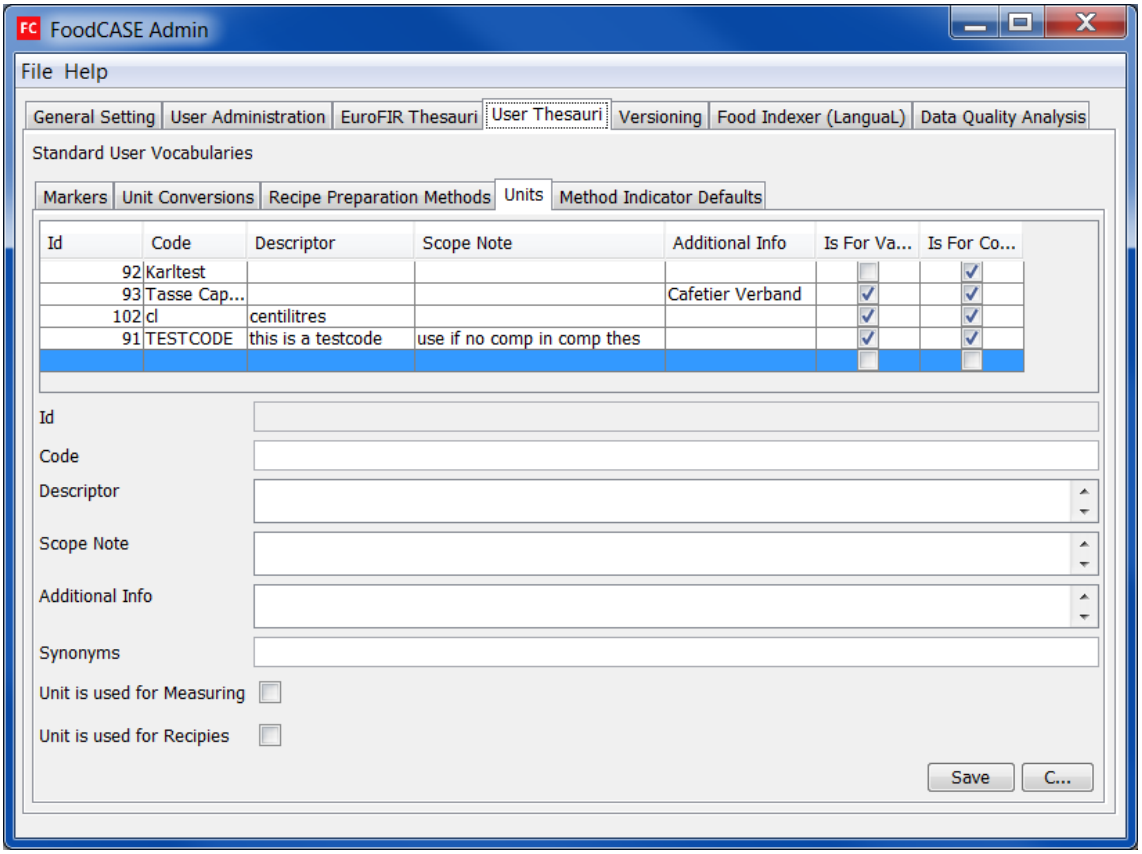



Figure 6.4.4.1-1

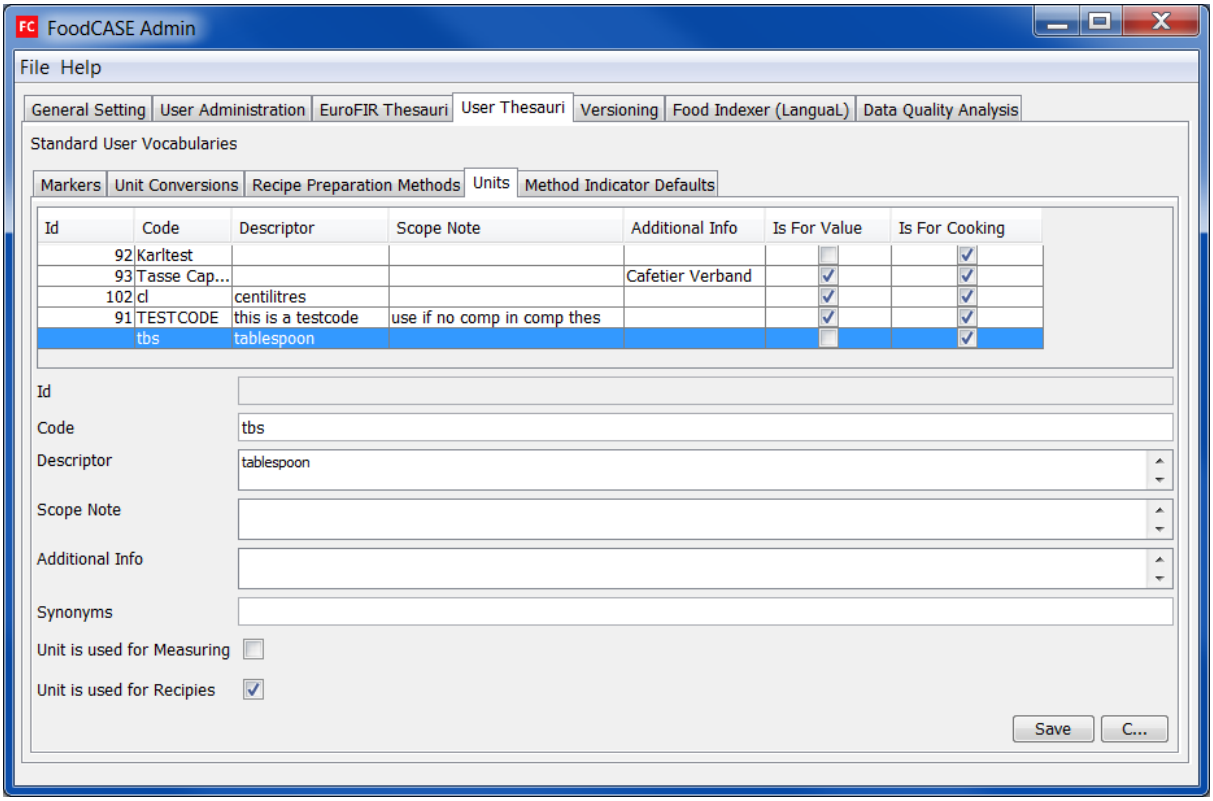



Figure 6.4.4.1-2

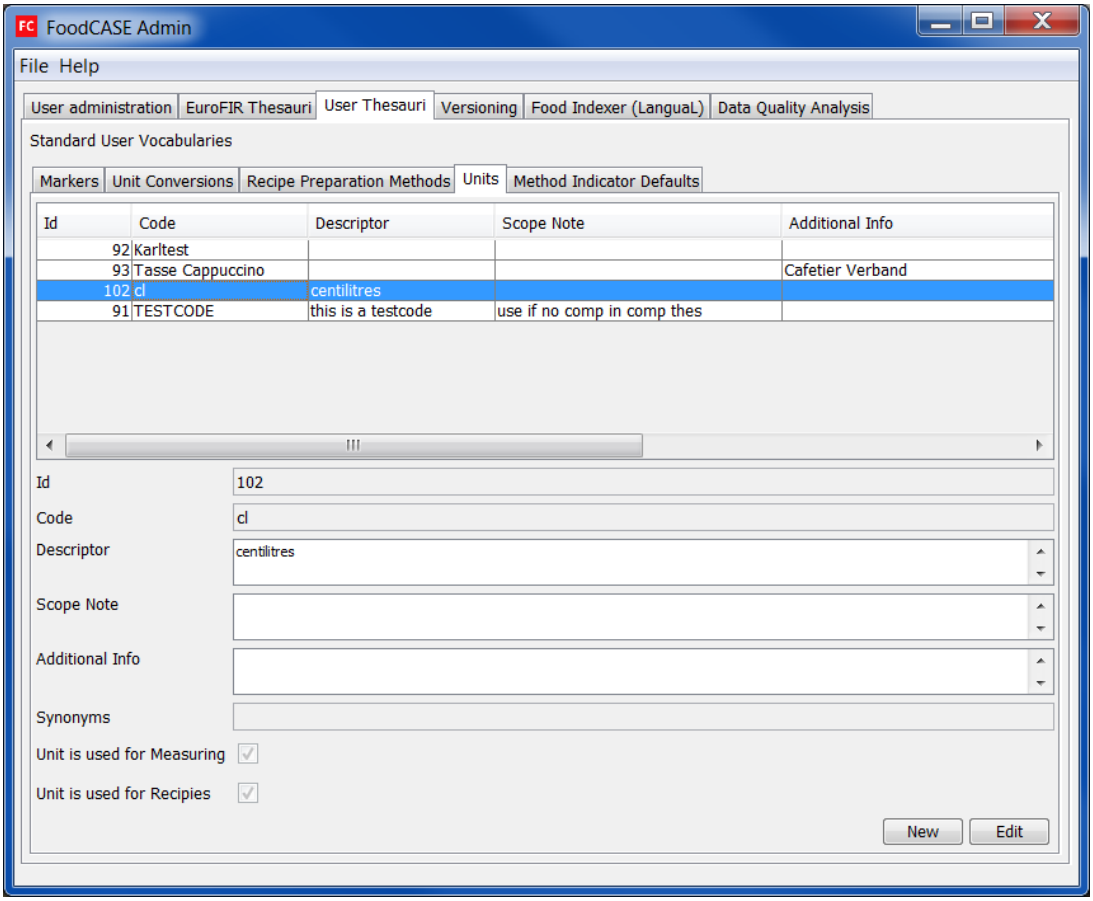



Figure 6.4.4.1-3

## 6.4.4.2 Updating Unit

1. Go to the User Thesauri register and select the Units tab (Figure 6.4.4)
2. Left click on an item and click the **Edit** button to activate the item for modification
3. Change the unit (Figure 6.4.4.2-1)
4. Click the **Save** button to store the change (Compiler Client must be restarted to update list of units) (Figure 6.4.4.2-2)

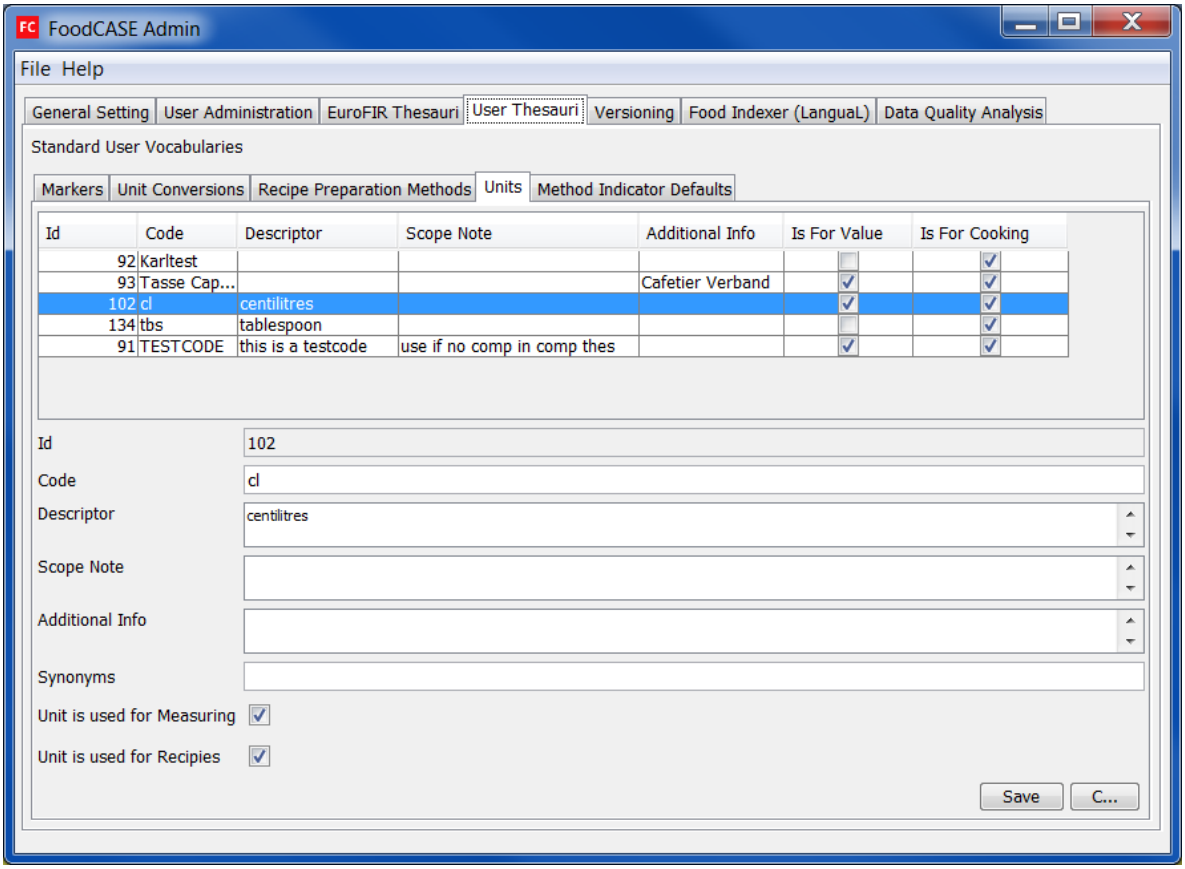



Figure 6.4.4.2-1

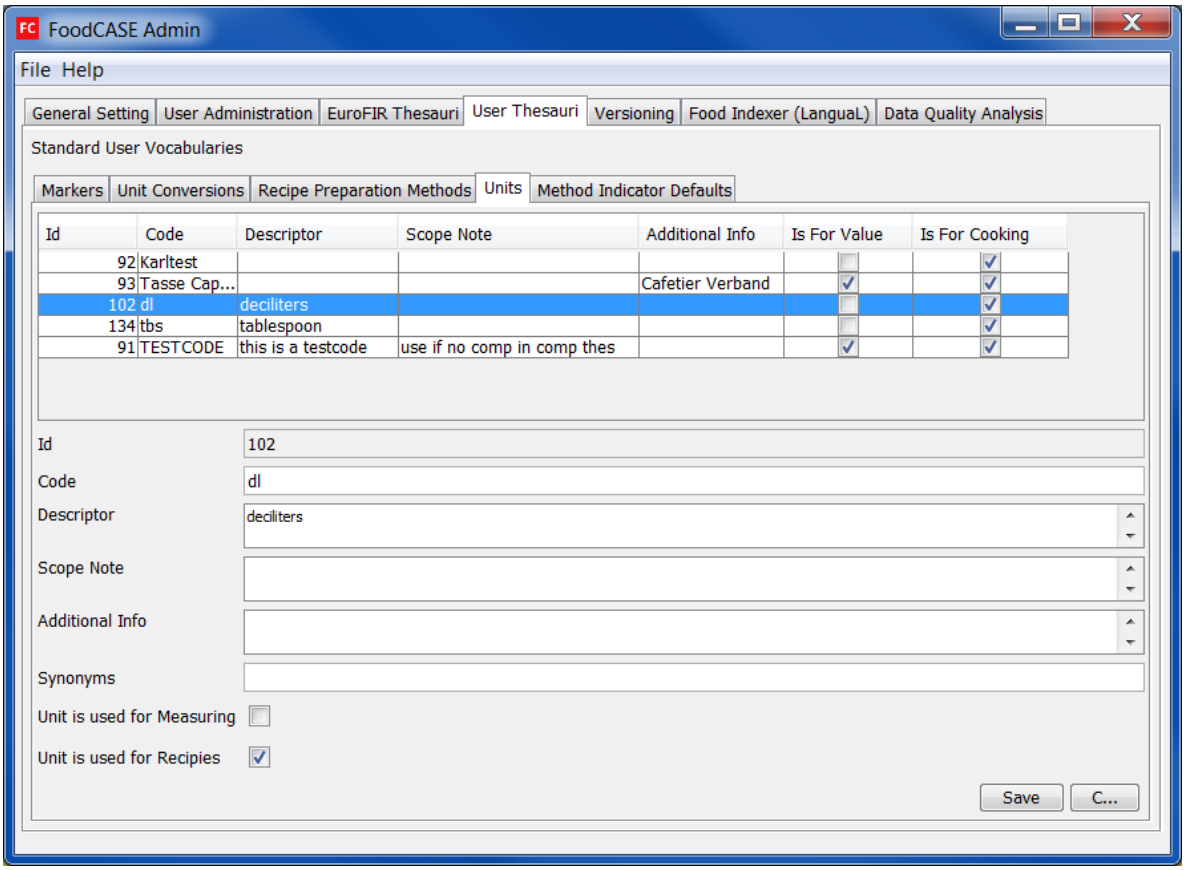



Figure 6.4.4.2-2

## 6.4.5 Method Indicator Defaults

For some calculated components, there exist two or more calculating methods in EuroFIR Method Indicator Thesaurus. In this tab, user can set default calculating method for calculated components (Figure 6.4.5) and then preferred method is applied for calculation in Compiler Client and user does not have to select it individually. Even though user set a default method, still there will be possibility to change to another method indicator in the Compiler Client if needed.

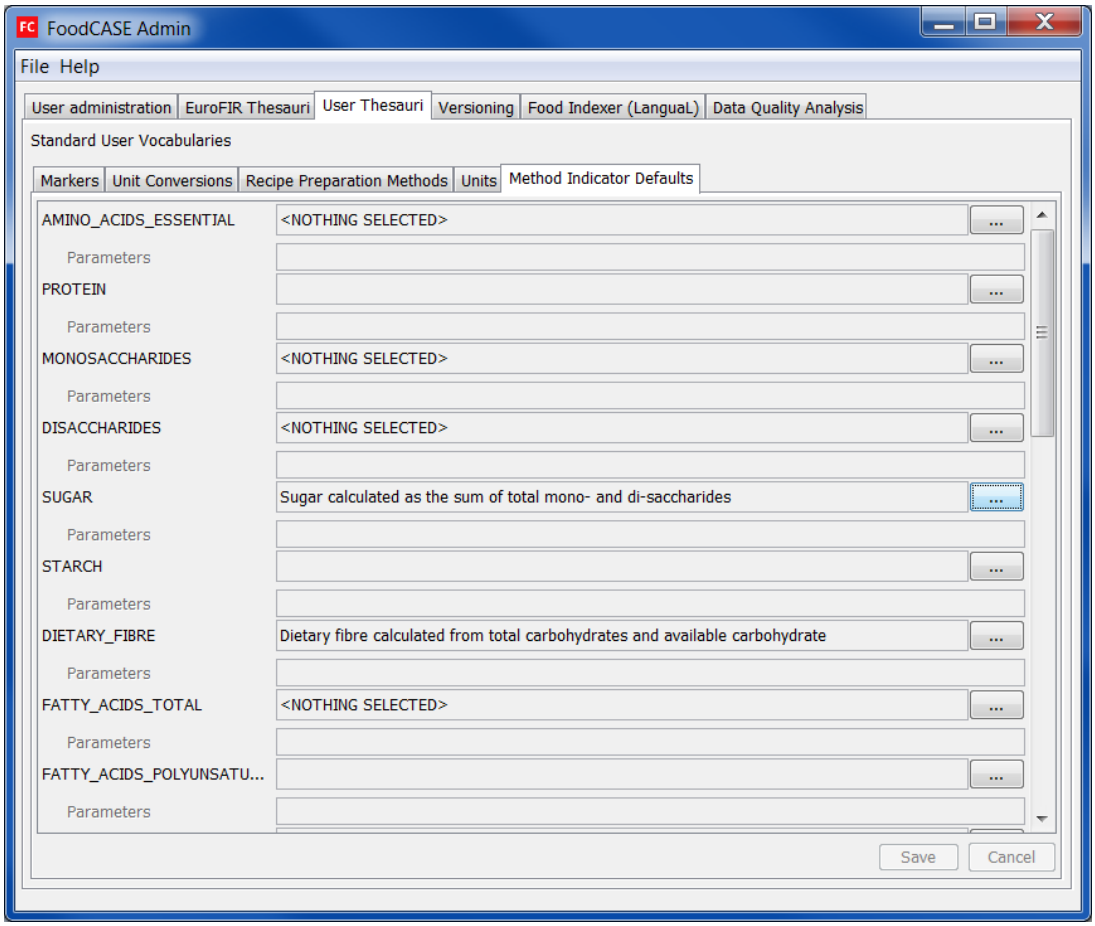



Figure 6.4.5: Comment: The available buttons are not active.

## 6.4.6 Own Coding System

In the Compiler Client application, there is actually incorporated the Swiss food group categorisation. However, this categorisation, claimed as a user categorisation, is without any possible way for modification. Here, in Admin Tool could be added another tab for “Own food group coding system”, e.g. for national standard, that could be created through Administration Tool and applied in Compiler Client as a local-specific standard.

## 6.5 Versioning

The register Versioning gives an overview of archived database versions of aggregated FoodCASE database. The head database version is the one on which compilers always work. All others are snapshots of the head version created at a specific time (Figure 6.5).
If the head version is marked for public (e.g. for a website), then all changes will be published immediately whenever something in the database has changed.

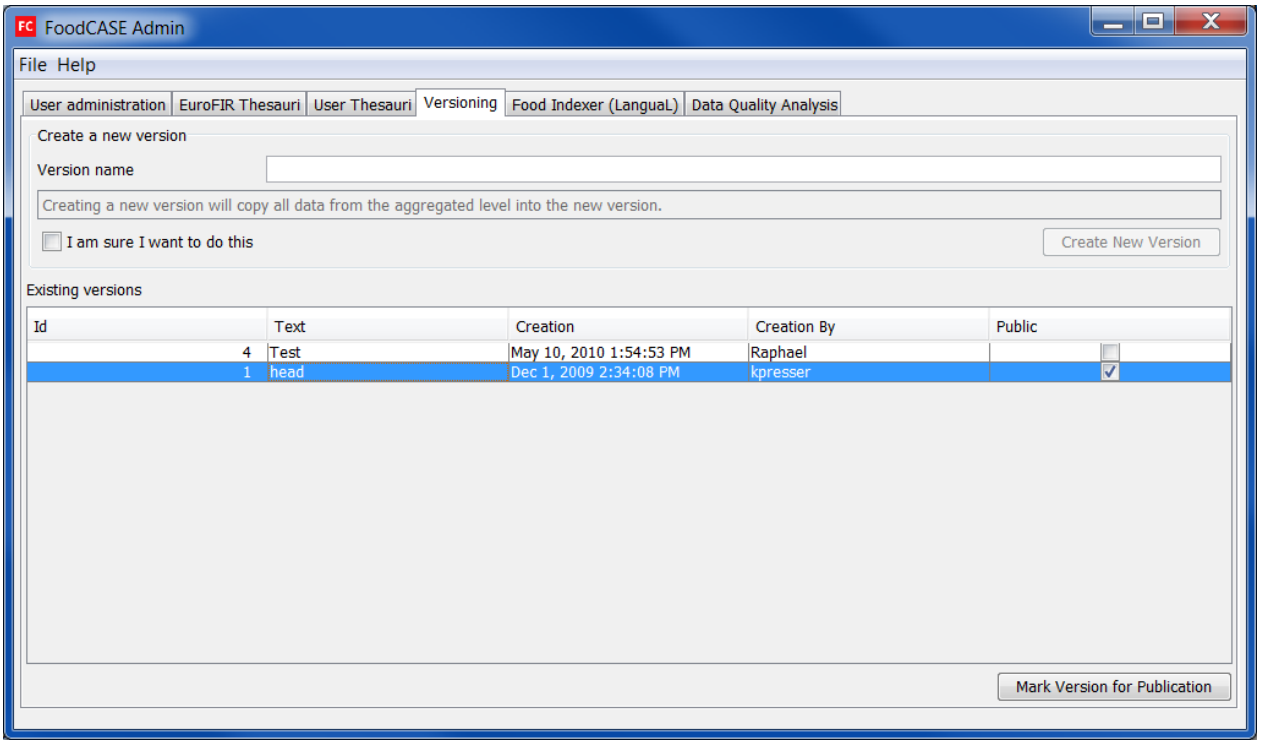



Figure 6.5: Here two versions of the database are available - the “head” version is marked for publishing

### 6.5.1 Creating New Database Version

New database version is a snapshot of the head version at a specific time. The new version is stored in the archive and is available only for reading. Compilers continue working on the head version.

**Procedure**

1. Go to the Versioning register
2. Tick the check box *I am sure I want to do this* to confirm that and thus confirm that a new version wants to be created (Figure 6.5.1-1)
3. Enter name of a new version into the text field *Version name*
4. Click the **Create New Version** button and new version is created after a while (Figure 6.5.1-2). The newly created version can be seen in drop down window of the Version register in FoodCASE Compiler Client

*Note: Name of the version in the field “Text” can include own numbering, naming and dates.*

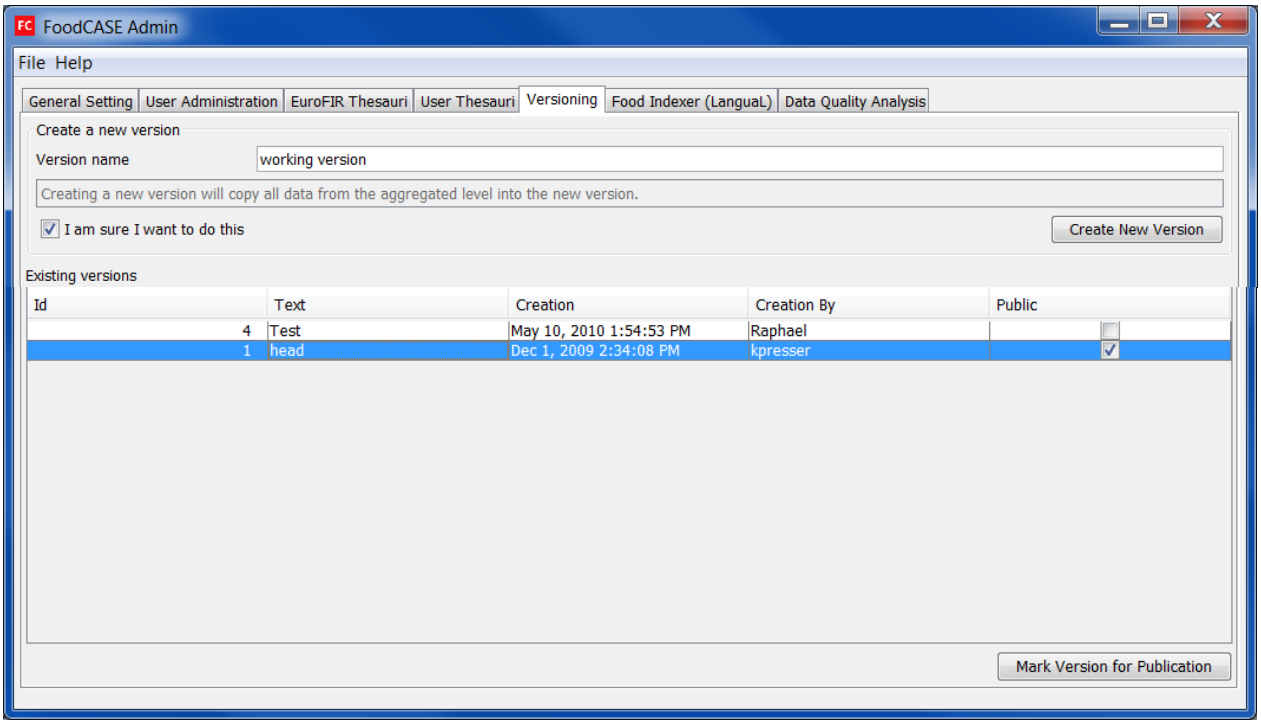



Figure 6.5.1-1

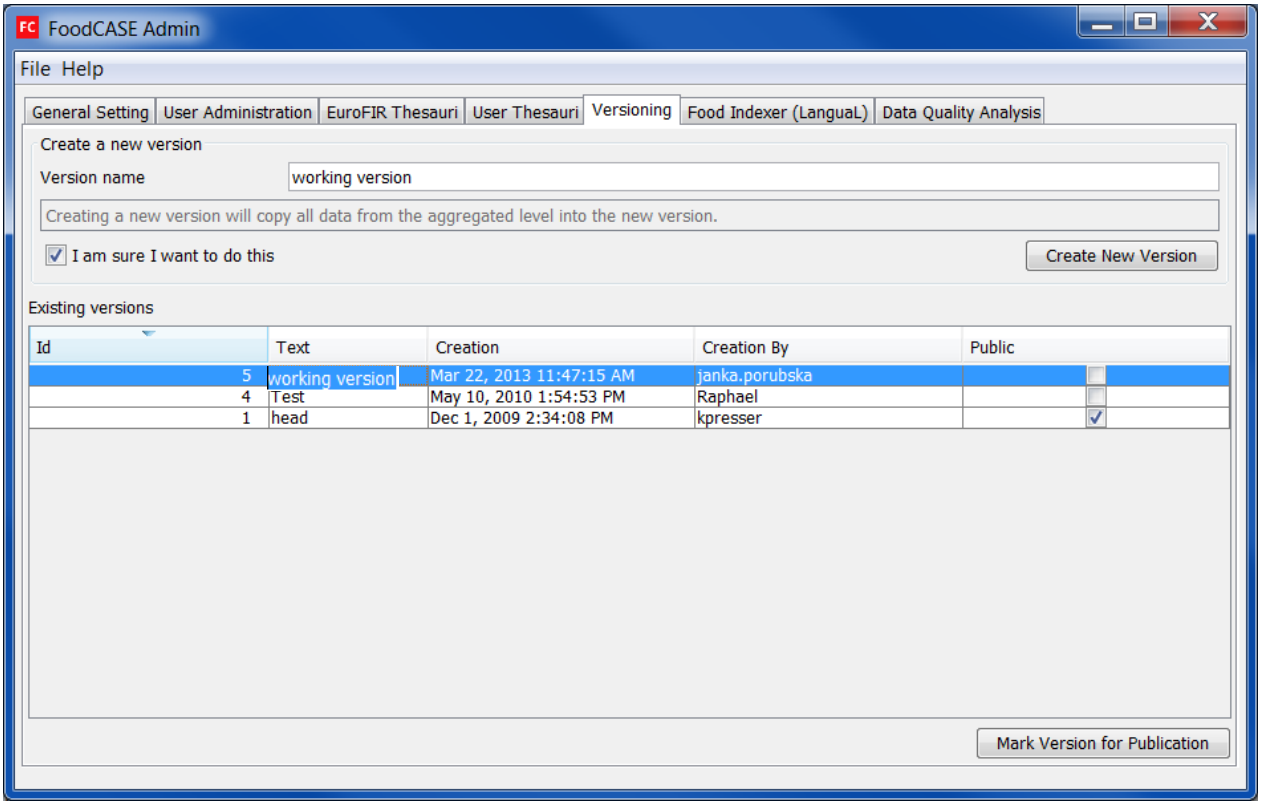



Figure 6.5.1-2

### 6.5.2 Numbering the Database Versions

Database numbers of versions are assigned automatically by software.
Following principle is applied for numbering different database versions:

1 - Current version,
2 - First archived version, which is oldest version,
3 – Second archived version, which is the second oldest version
…
n – The latest archived version available

Anytime a new version of the database is created in the Versioning register, it is identified with number following chronologically (n+1).

### 6.5.3 Marking Version for Publishing

Any version on the list can be marked for publication by setting cursor on a version and click the **Mark Version for Publication** button (or by putting a tick in the check box). This version is marked as the public version. This mark can for instance, be used to show only this data on a website.

## 6.6 Data Quality Analysis

This register is used for setting qualitative parameters and frequency of data quality assessment. Assessment can be run only in FoodCASE Administration Tool over the current version. There are six tabs within this register.

### 6.6.1 General Principles

For quality assessment purposes there are applied various principles in FoodCASE that are on the cutting research edge in the area of data quality. As data quality is quite complex topic, FoodCASE offers maximum flexibility for the definition of quality measurement. In order, it is necessary that to use SQL-like syntax to define some of the measurement parameters. These functionalities are described in the following.

### 6.6.2 Quality Entities

This is a list of standard entities in FoodCASE (Figure 6.6.2-1). Quality entities are used to define on what business object is quality assessed. The list of quality entities is complete so that no entities must be added. Anyway, to modify a quality entity, it is helpful to understand the database structure of FoodCASE.

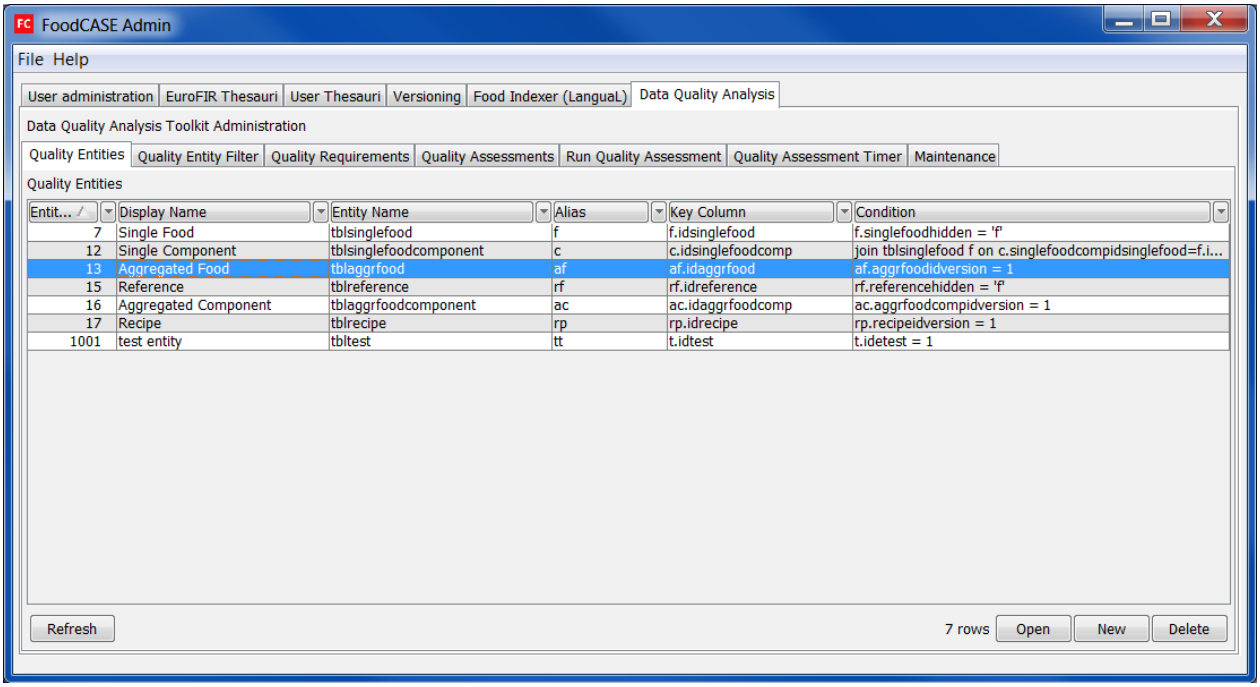



Figure 6.6.2-1: Based on defined condition quality assessment is conducted on the latest (actual) database at aggregated food, aggregated component, recipe level and at the “test entity”. Quality assessment is not conducted on the references and on the single database level

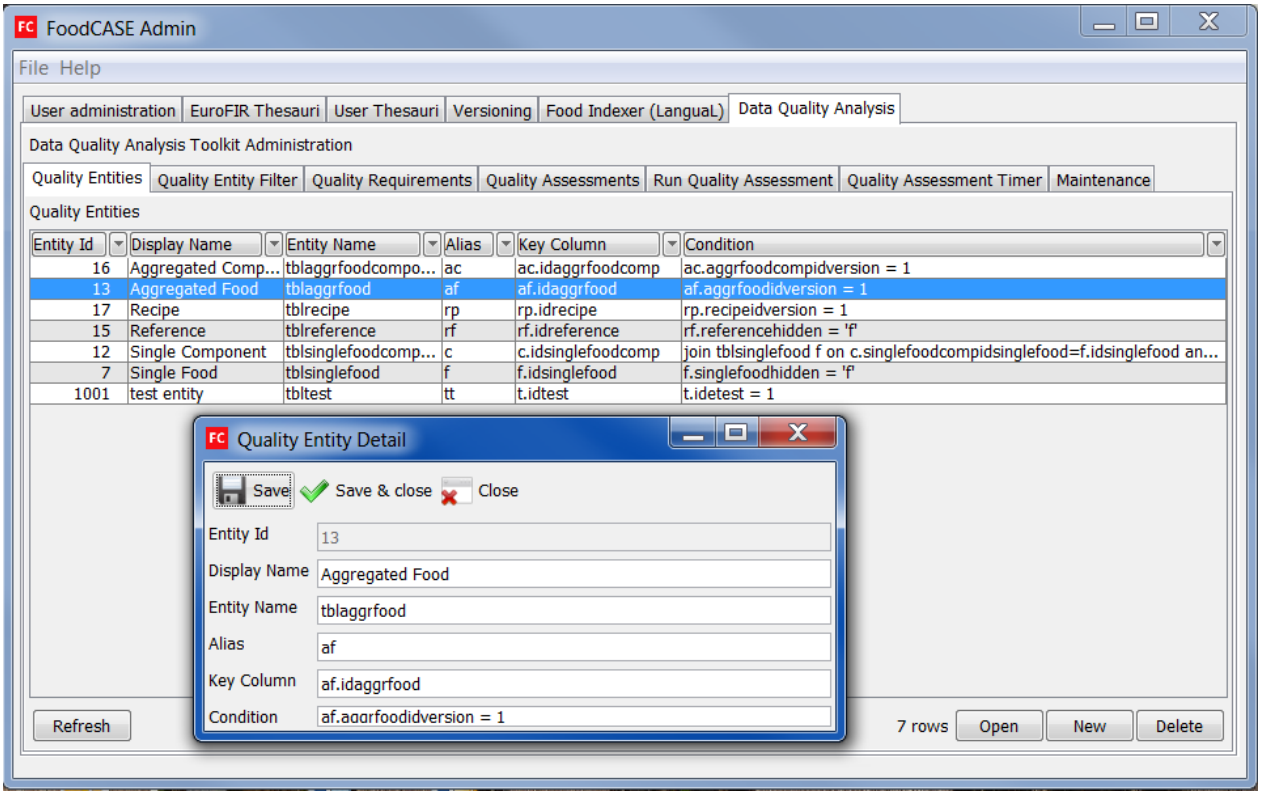



Figure 6.6.2-2: Entities can be modified by use of the **Open**, **New** and **Delete** buttons

## 6.6.3 Quality Entity Filter

It is a table for defining terms for filtering data according to various descriptors when setting criteria for quality assessment analysis. For example, aggregated components can be filtered based on the Method Indicator thesaurus (Figure 6.6.3-1). These filter parameters can be subsequently seen in Data Quality Analysis Toolkit which is accessible via Compiler Client (Figure 6.6.3-2). Standard buttons **Open**, **New**, **Delete** and **Refresh** are used for setting filter parameters to an entity.

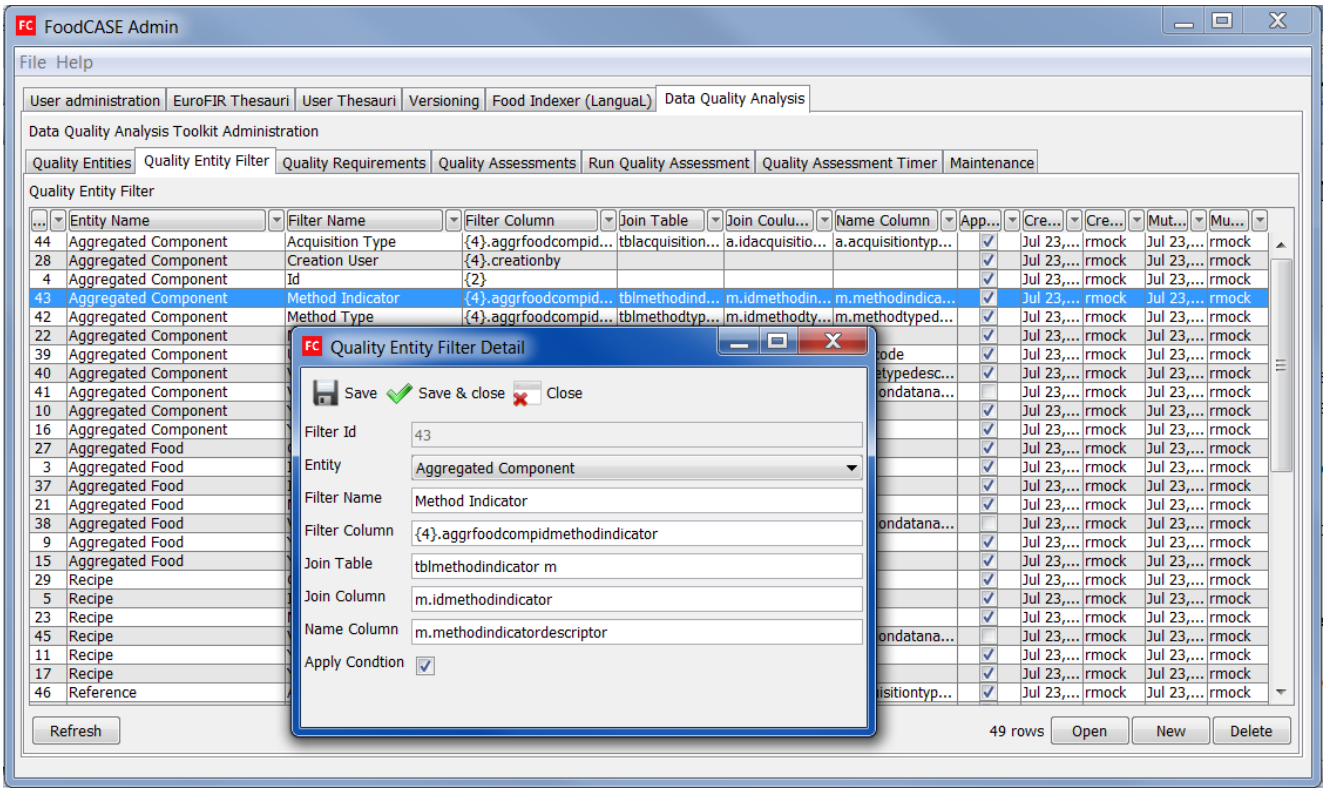



Figure 6.6.3-1

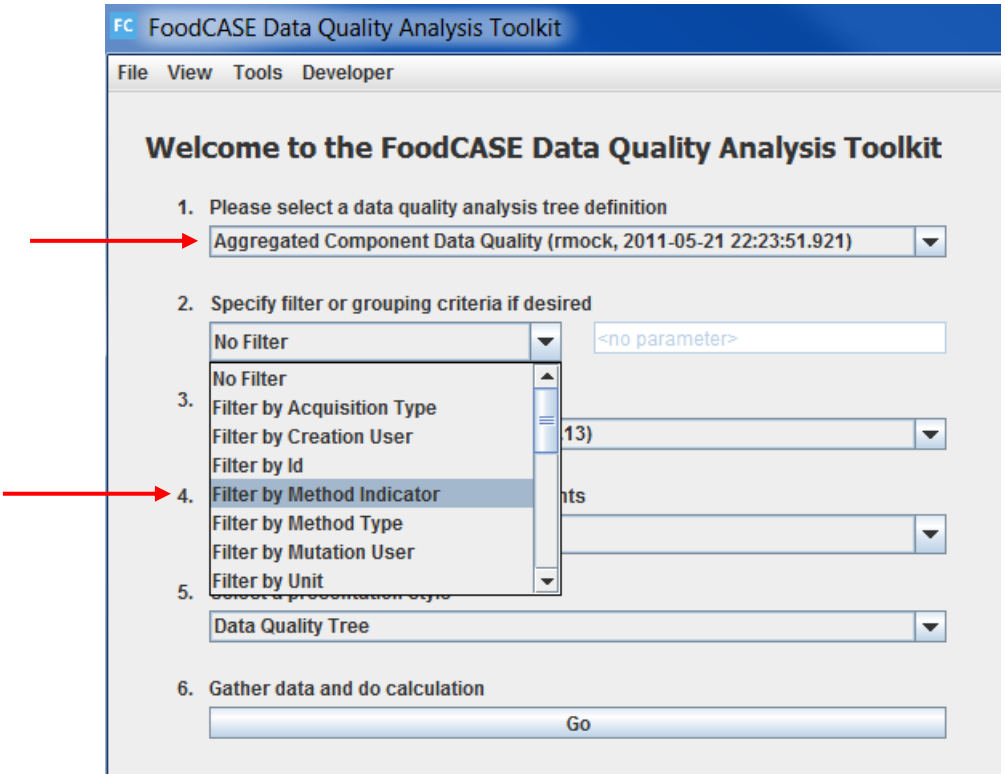



Figure 6.6.3-2

**Quality Entity Filter Details**

When setting quality entity filter (Figure 6.6.3-1), all information that can be defined in an SQL statement can be defined.

## 6.6.4 Quality Requirements

Here user defines measures for quality assessment. For instance, measure that check data consistency for sum of all components in food to give 100 (Figure 6.6.4-1 and 6.6.4-2). For adding, deleting and editing requirements use standard buttons **Open**, **New**, **Delete** and **Refresh**. However, the requirement is described by SQL language and that is why an IT specialist must specify it.

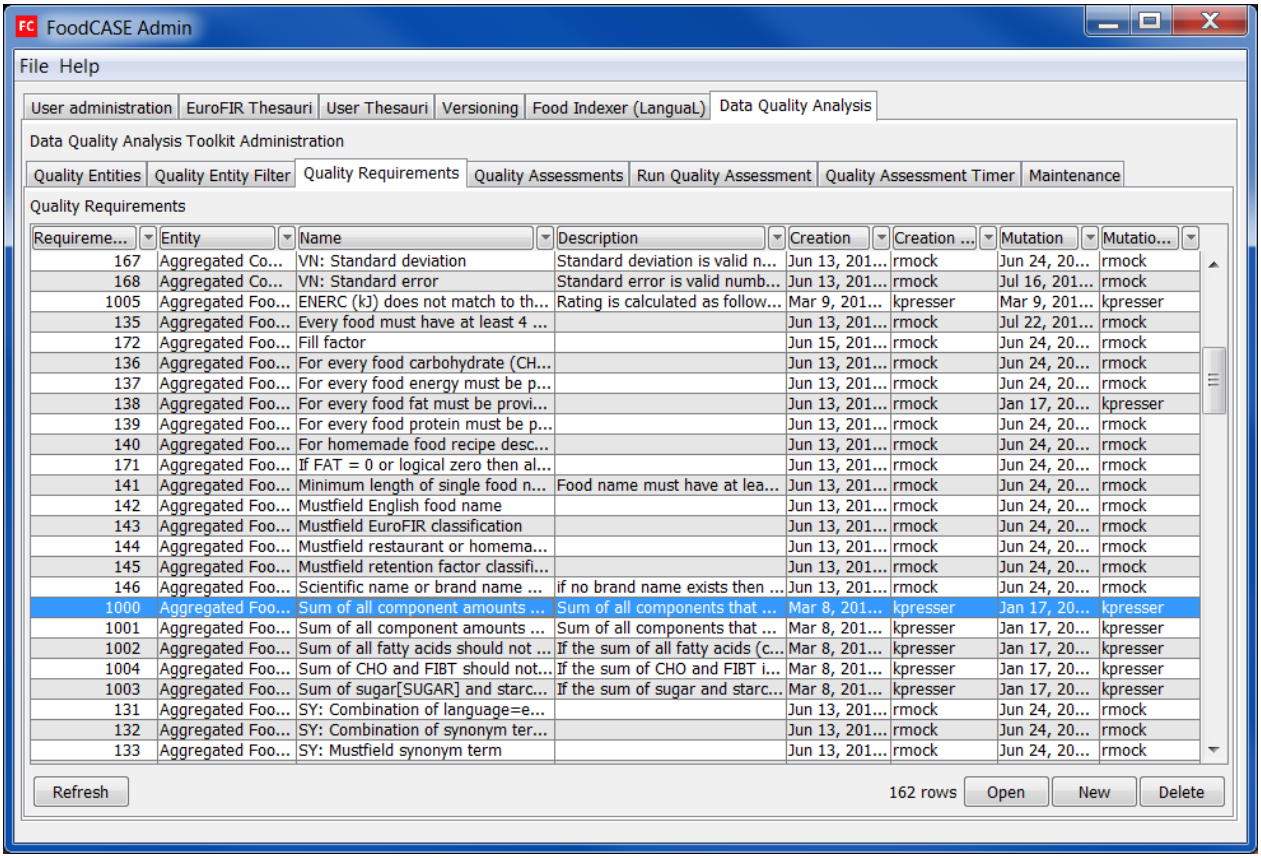



Figure 6.6.4-1

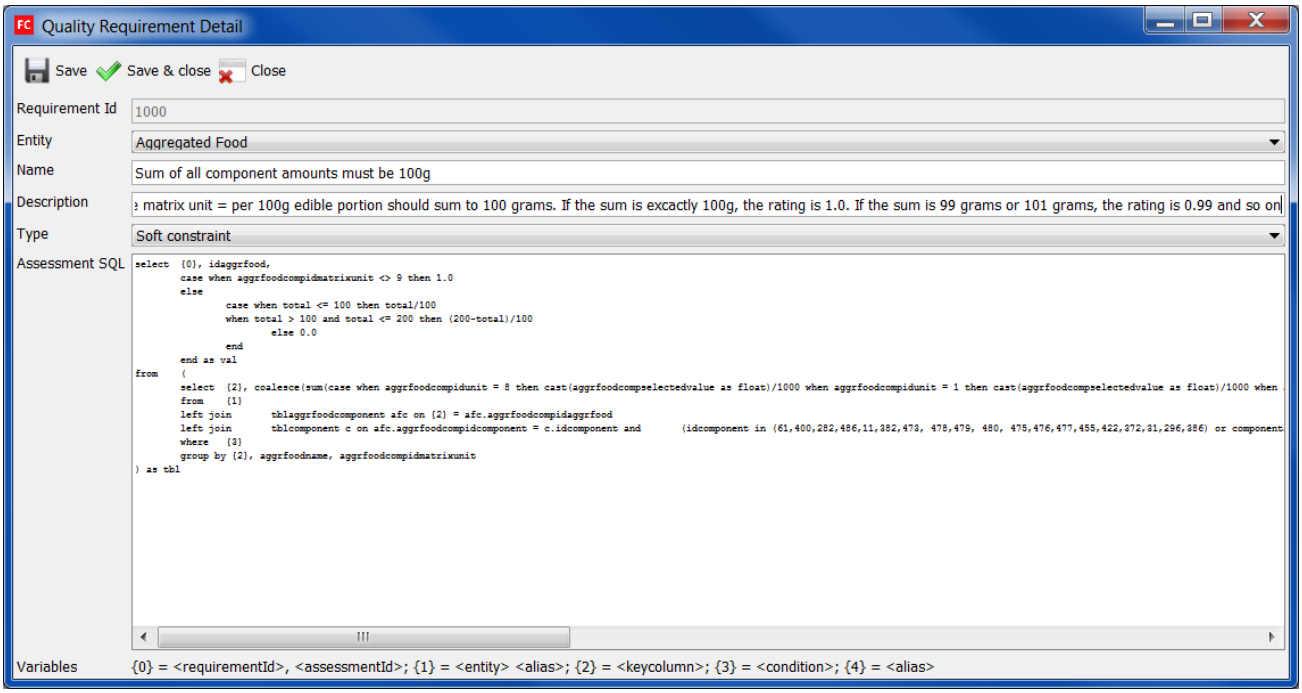



Figure 6.6.4-2

**Quality Requirement Details**

When defining new measure for quality assessment (Figure 6.6.4-2), following information needs to be defined:

*Entity* – select it from the drop down window of the existing entities (entities can be modified in Quality Entities tab),

*Name* – enter name of measure,

*Description* – describe in details conditions of measure

*Type* – define if the requirement is a hard constraint, soft constraint or an indicator,

*Assessment SQL* – measurement of data quality requirement written in SQL-like manner.

## 6.6.5 Quality Assessment

Executed runs of quality assessment are listed here. The tab indicates who and when carried out the quality assessment (Figure 6.6.5-1). The name of the run can be modified using the **Open** button (Figure 6.6.5-2) or run can be deleted completely from the database by using the **Delete** button. Click on the **New** button redirects user to the Run Quality Assessment tab.

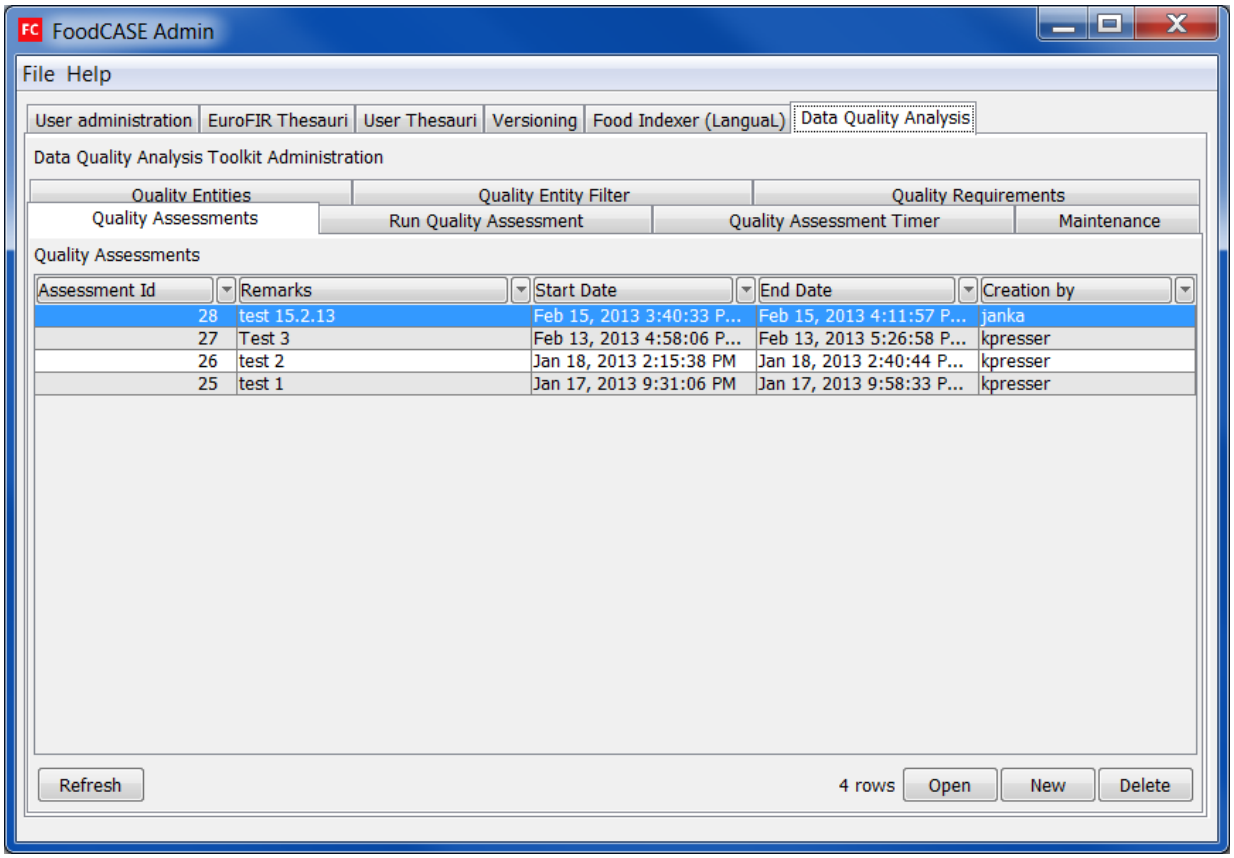



Figure 6.6.5-1

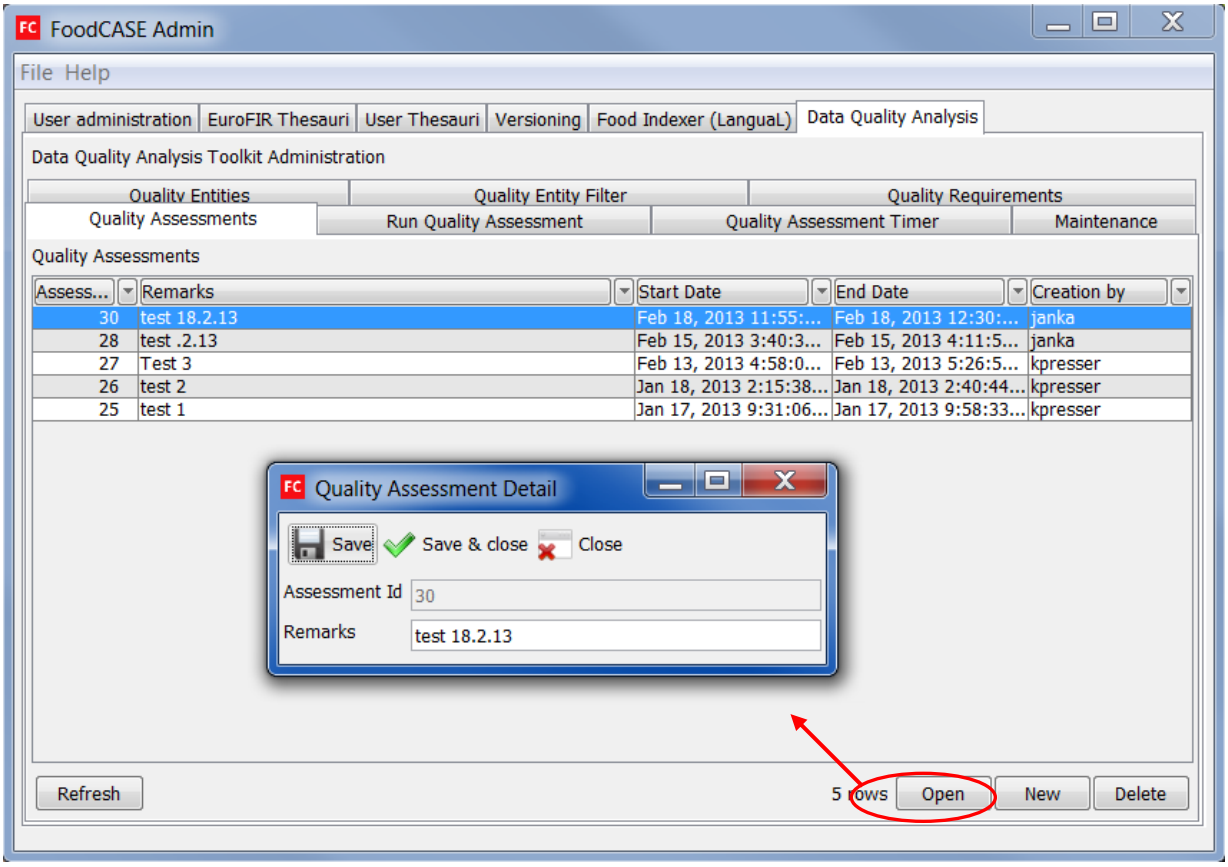



Figure 6.6.5-2

## 6.6.6 Run Quality Assessment

Here user can launch the quality assessment based on defined parameters.

The run takes quite long time and length depends on size of database and number of quality requirements set for data.

The progress of the analysis is indicated by the green line and by per cent of achieved checks. At the same time, particular requirements with number of hits on how many records met the requirement are displaying continually (Figure 6.6.6-2).

There is no special button to stop running of the quality assessment, however, by closing the application the analysis stops (Figure 6.6.6-4).

Before quality assessment is launched, user should define conditions under which analysis will run (e.g. entities, database versions, quality conditions, etc.; see chap. *6.6.1 - 6.6.5*).

**Procedure**

1. Go to the Run Quality Assessment tab and click the **Run Quality Assessment** button
2. Enter a name of the run and click the **OK** button (Figure 6.6.6-1)
3. The application starts analysis (which might take several minutes or even half an hour) (Figure 6.6.6-2)

4. As soon as the assessment is done (Figure 6.6.6-3), user can see the results in the Data Quality Analysis Toolkit in the Compiler Client of FoodCASE (*Menu File → View → Data Quality Analysis (new) → Select a quality assessment*) and analyse them

*Note: For a large database, it might be best to start a quality assessment at the end of the day and let it run over night.*

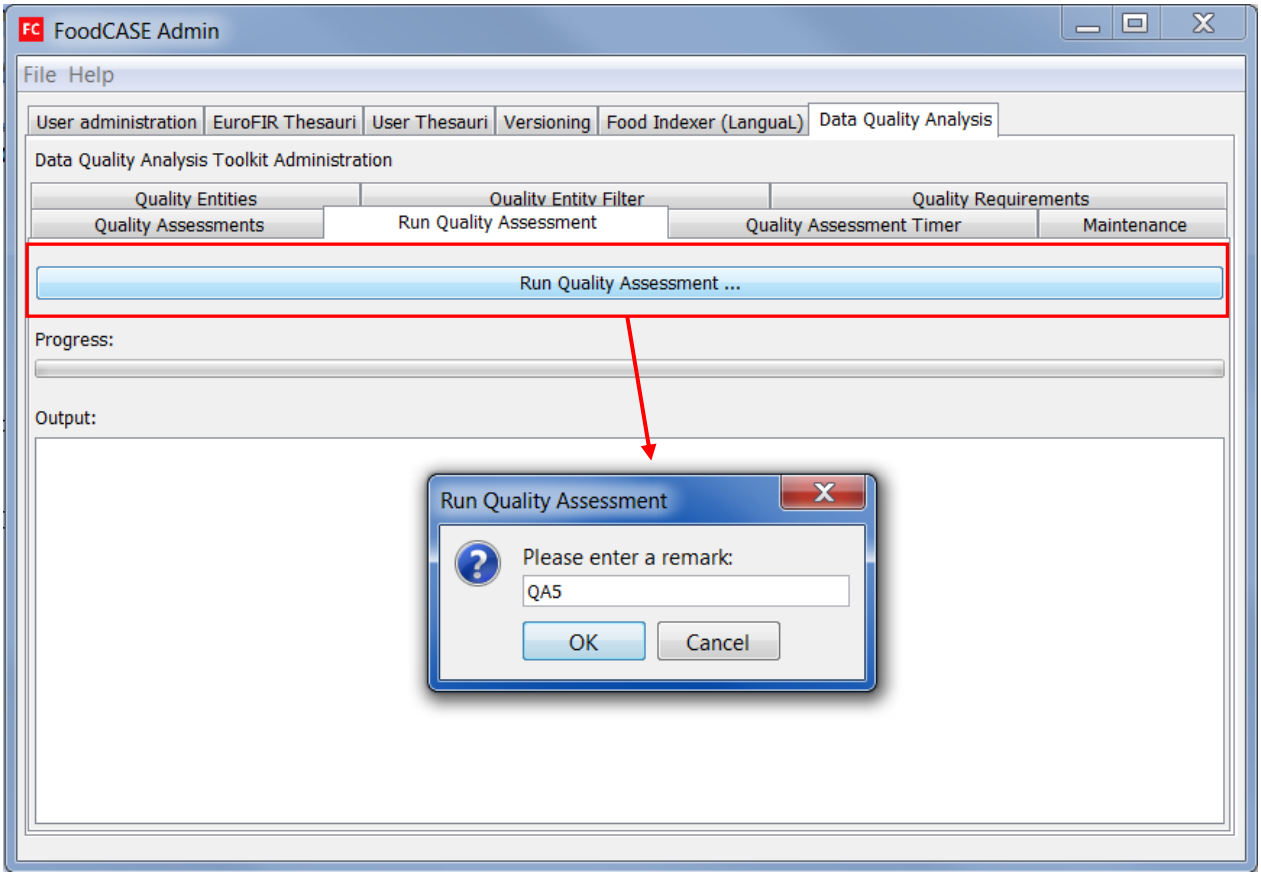



Figure 6.6.6-1

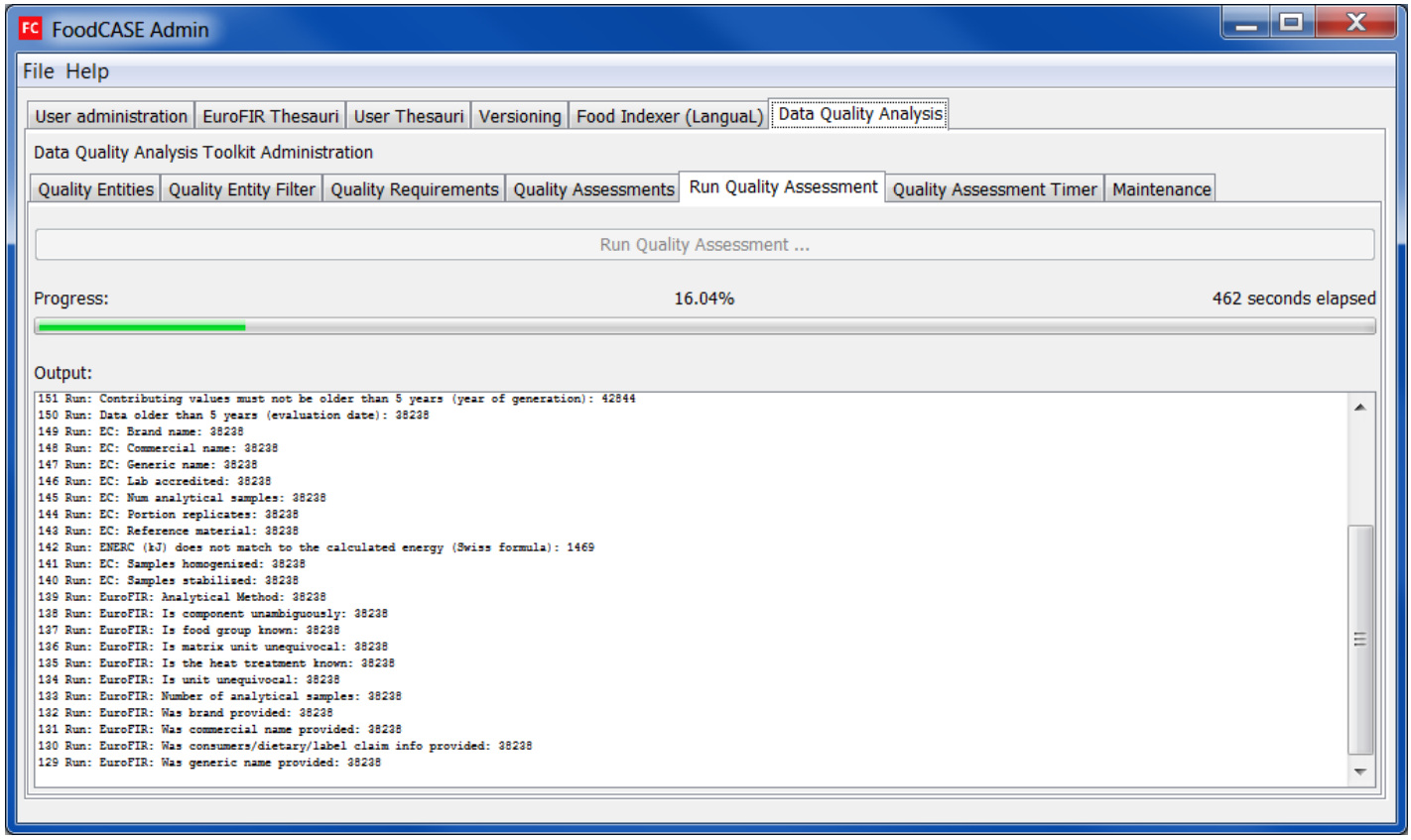



Figure 6.6.6-2

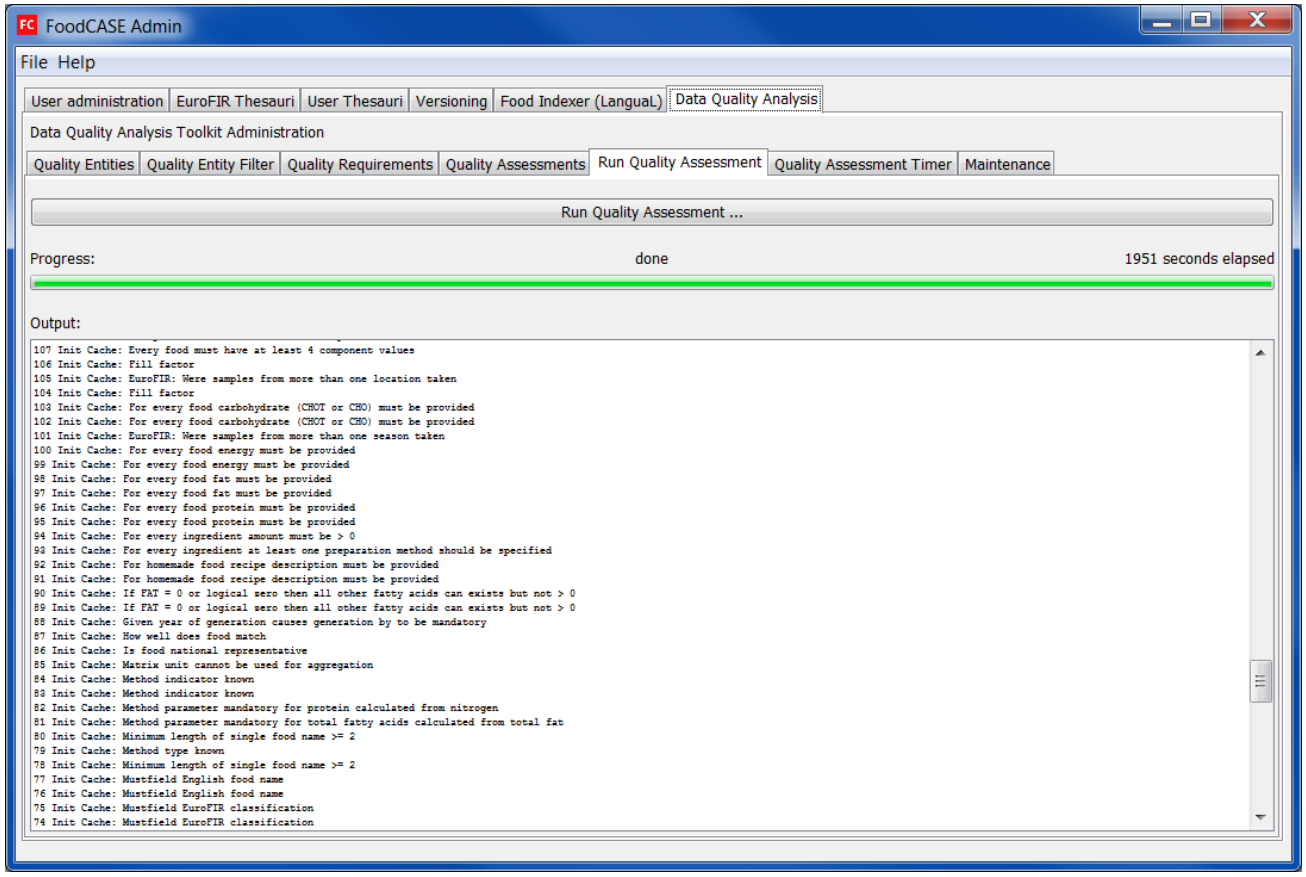



Figure 6.6.6-3

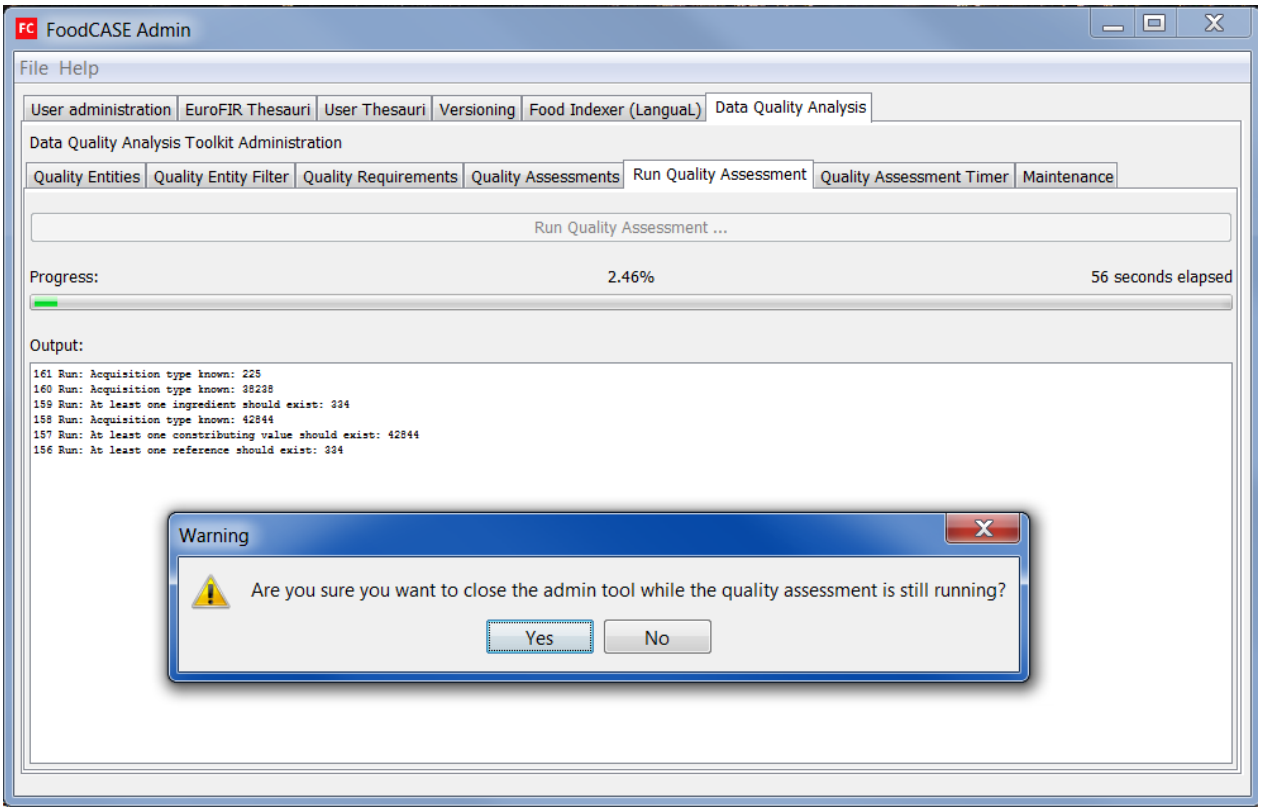



Figure 6.6.6-4

## 6.6.7 Quality Assessment Timer

In FoodCASE Administration Tool periodicity of the assessment can be set by timer to be carried out regularly. When timer is set, analysis can run automatically without need to start up any of the applications. That means that while only administrator is authorized to set parameters and timer to run the analysis, the results of the assessment can be whenever analysed by compilers in Data Quality Analysis Toolkit.

**Procedure for setting/cancelling/resetting timer**

1. Go to the Quality Assessment Timer tab (Figure 6.6.7-1)
2. Click the **Register Timer** button
3. Define start time and interval for regular run of analysis (Figure 6.6.7-2) and click the **Save** (or **Save and Close**) button
4. Timer can be cancelled or rescheduled by using the **Cancel Timer** and the **Reschedule Timer** buttons, respectively (Figure 6.6.7-3)

*Note: The timer can launch the earliest run shortly after midnight of the actual date. The shortest frequency for running the analysis is 1 day.*

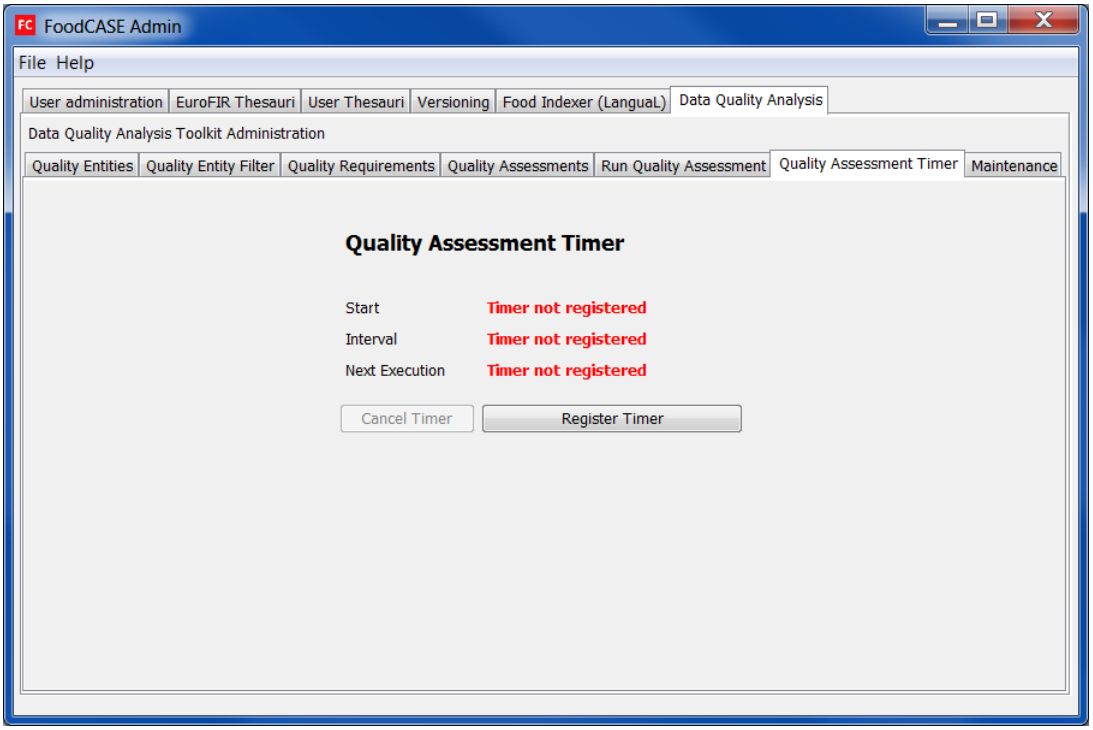



Figure 6.6.7-1

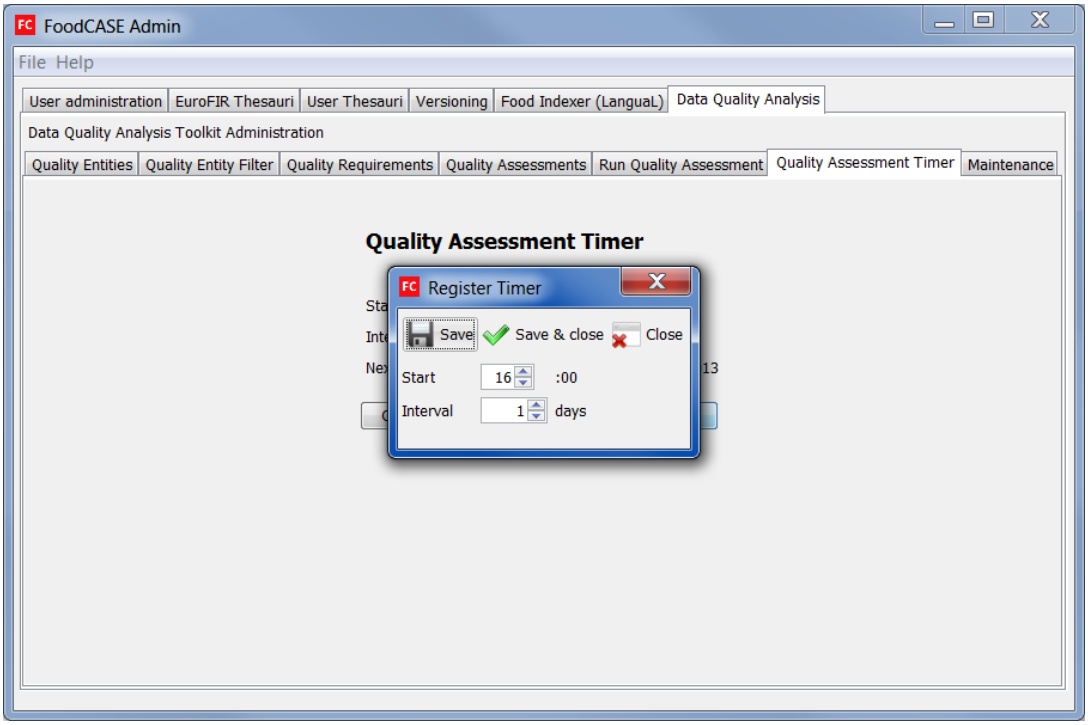



Figure 6.6.7-2

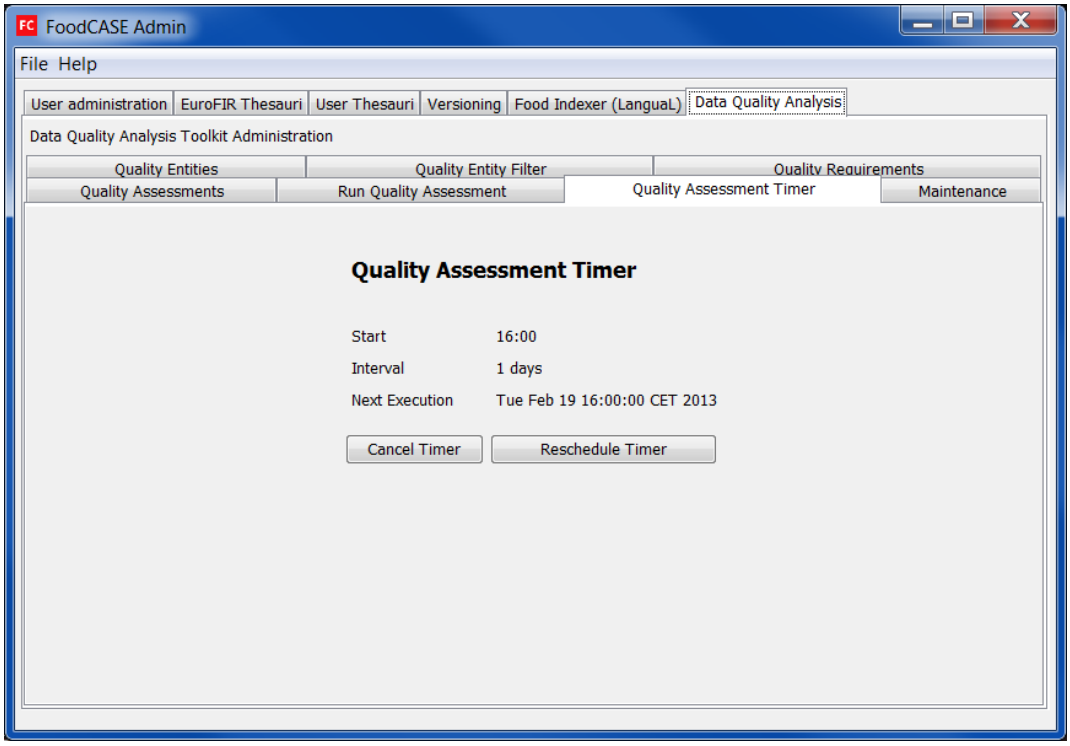



Figure 6.6.7-3

# 7 FoodCASE Administration Tool vs. Compiler Client Application

There is no limitation for working on both applications at the same time; however, changes conducted in Administration Tool are not applied in FoodCASE Compiler Client unless Compiler Client is restarted.

# References

Becker, W. - Møller, A.- Ireland, J. - Roe, M. - Unwin, I. - Pakkala, H. (2008). Proposal for structure and detail of a EuroFIR standard on food composition data. II: Technical annex, EuroFIR Technical Report D1.8.19, 40 p.

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