

FoodCASE Training

Practical part 4: Additional Functionalities



Agenda

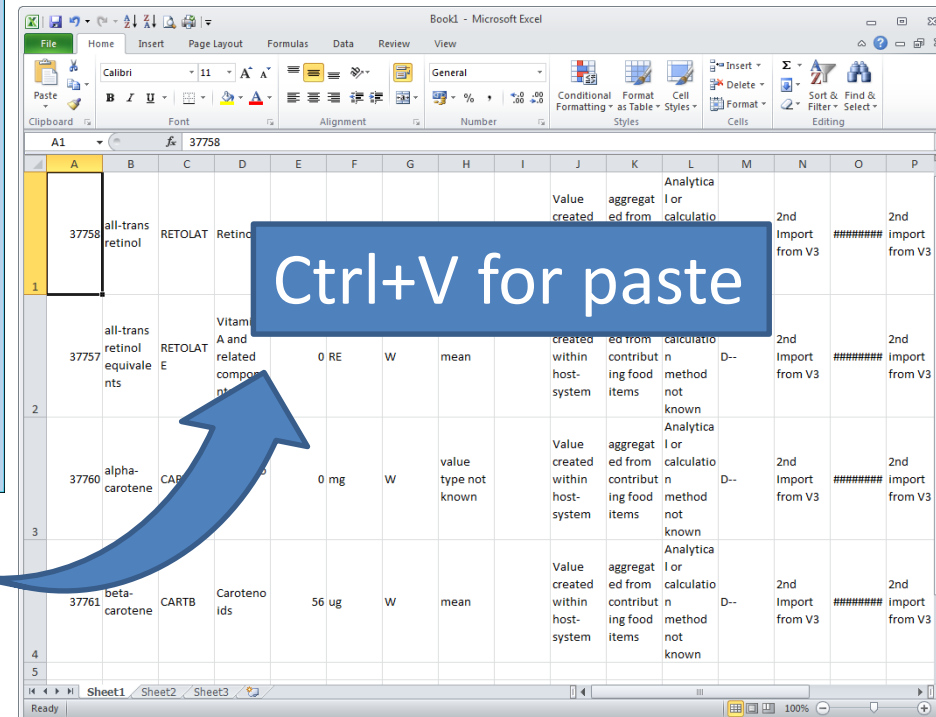
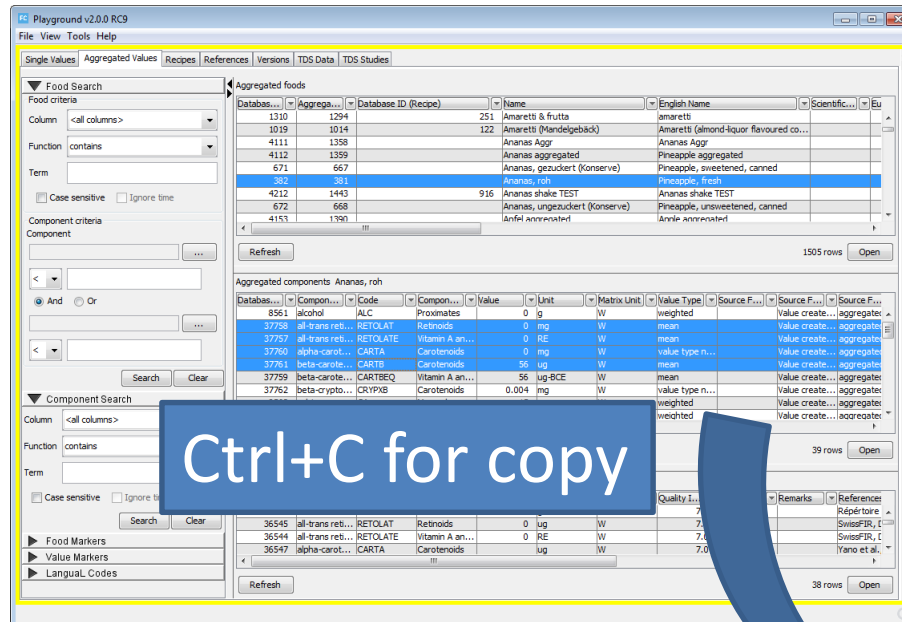
- Export Data
- Import Data
- LanguaL
- Data Quality Analysis
- Data Issue Analysis
- Check and Approve Wizard
- Bulk Borrow
- Nutrient Estimation Wizard

Types of Export

- Copy-Paste Export
- FDTP Export (Food Data Transport Package)
- EuroFIR EXCEL Export
- Custom Reports

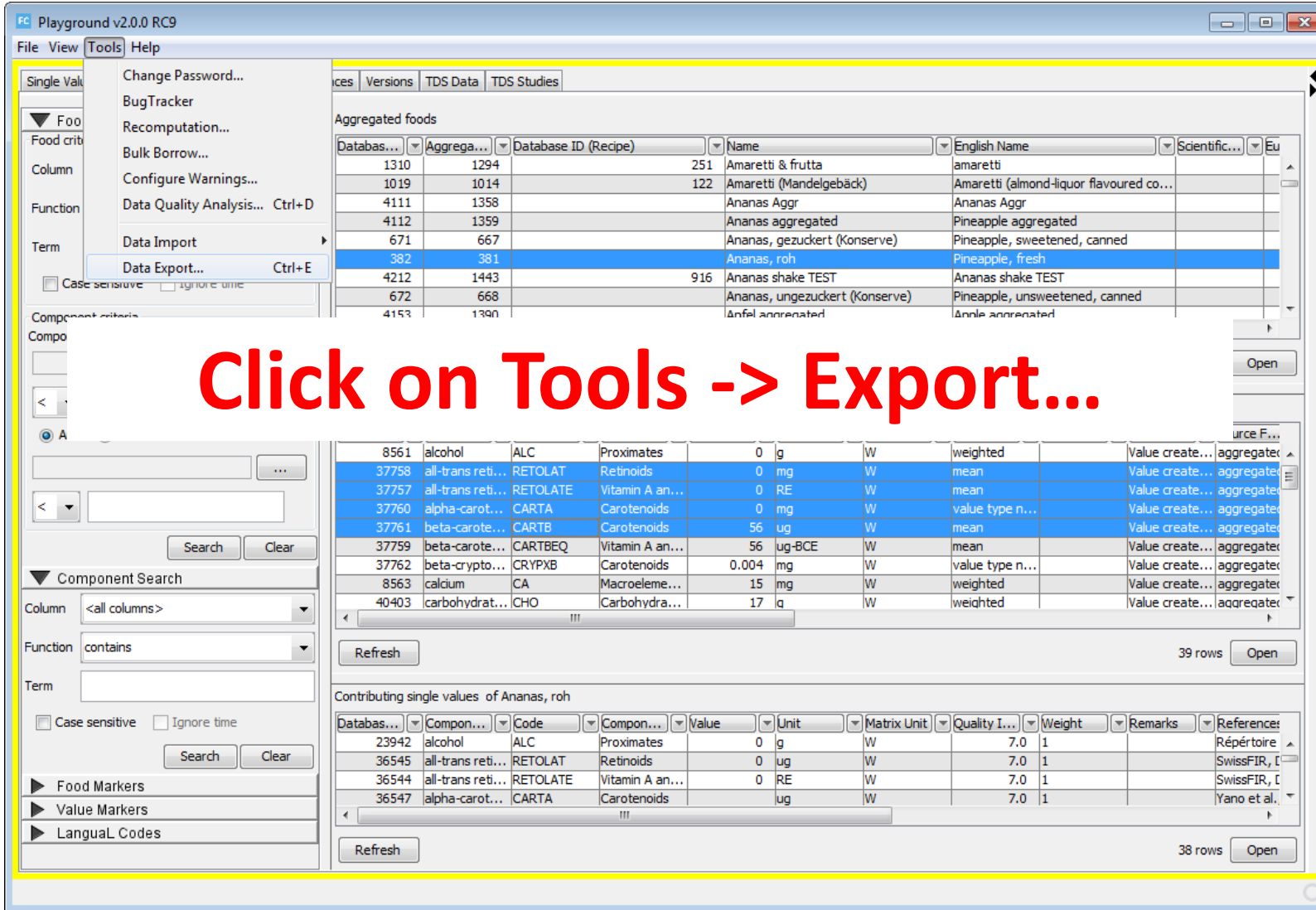
Copy-Paste Export

Every selection in tables can be copy and paste into EXCEL.



FDTP Export

Click on Tools -> Export...



The screenshot shows the FoodCase Playground v2.0.0 RC9 interface. The 'Tools' menu is open, and 'Data Export...' is highlighted. The interface displays two tables: 'Aggregated foods' and 'Contributing single values of Ananas, roh'.

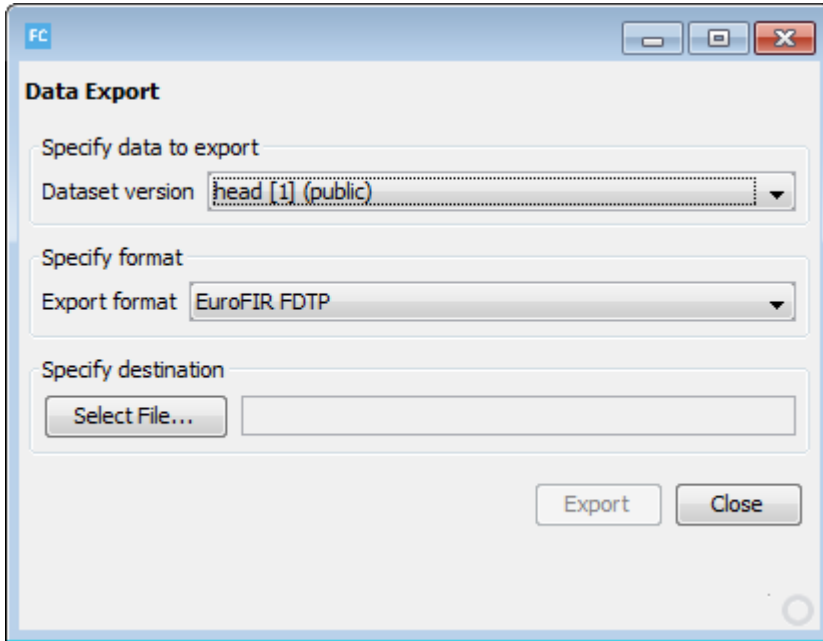
Aggregated foods table:

Databas...	Aggrega...	Database ID (Recipe)	Name	English Name	Scientific...	Eu
1310	1294	251	Amaretti & frutta	amaretti		
1019	1014	122	Amaretti (Mandelgebäck)	Amaretti (almond-liquor flavoured co...		
4111	1358		Ananas Aggr	Ananas Aggr		
4112	1359		Ananas aggregated	Pineapple aggregated		
671	667		Ananas, gezuckert (Konserven)	Pineapple, sweetened, canned		
382	381		Ananas, roh	Pineapple, fresh		
4212	1443	916	Ananas shake TEST	Ananas shake TEST		
672	668		Ananas, ungezuckert (Konserven)	Pineapple, unsweetened, canned		
4153	1390		Ananas aggregated	Ananas aggregated		

Contributing single values of Ananas, roh table:

Databas...	Compon...	Code	Compon...	Value	Unit	Matrix Unit	Quality I...	Weight	Remarks	References
23942	alcohol	ALC	Proximates	0	g	W	7.0	1		Répertoire
36545	all-trans reti...	RETOLAT	Retinoids	0	ug	W	7.0	1		SwissFIR, I
36544	all-trans reti...	RETOLATE	Vitamin A an...	0	RE	W	7.0	1		SwissFIR, I
36547	alpha-carot...	CARTA	Carotenoids		ug	W	7.0	1		Yano et al.

FDTP Export



Data Export

Specify data to export

Dataset version: head [1] (public)

Specify format

Export format: EuroFIR FDTP

Specify destination

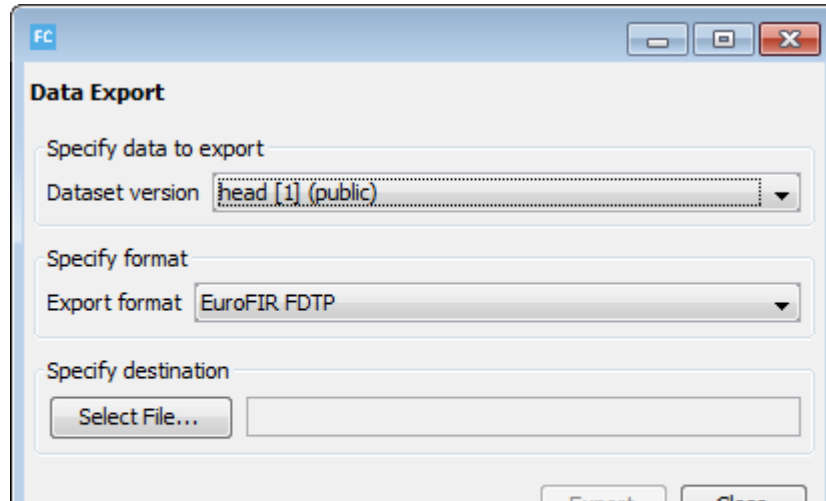
Select File...

Export Close

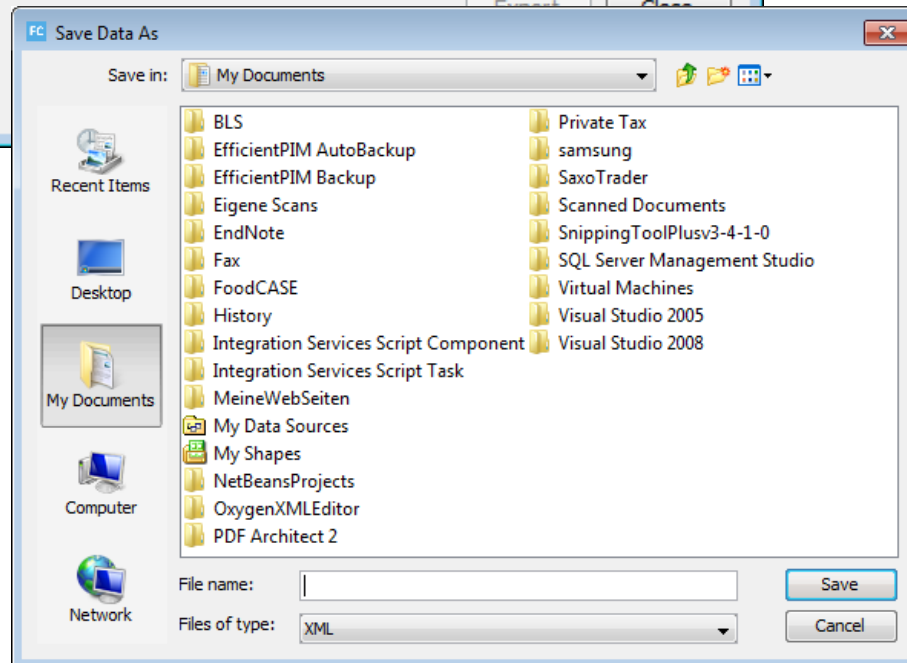
Select the version that you want to export

Select format that you want to export

FDTP Export

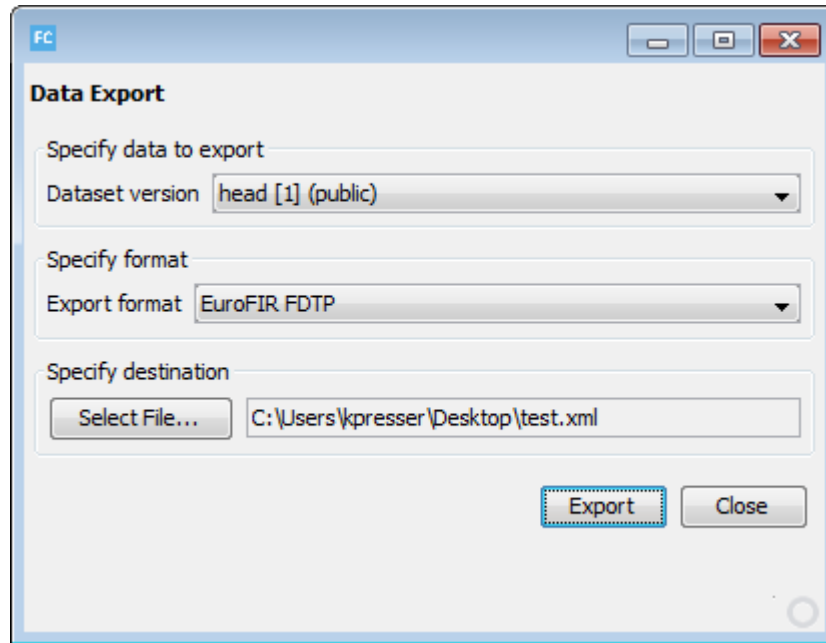


Select file to export



Provide file name
including extension

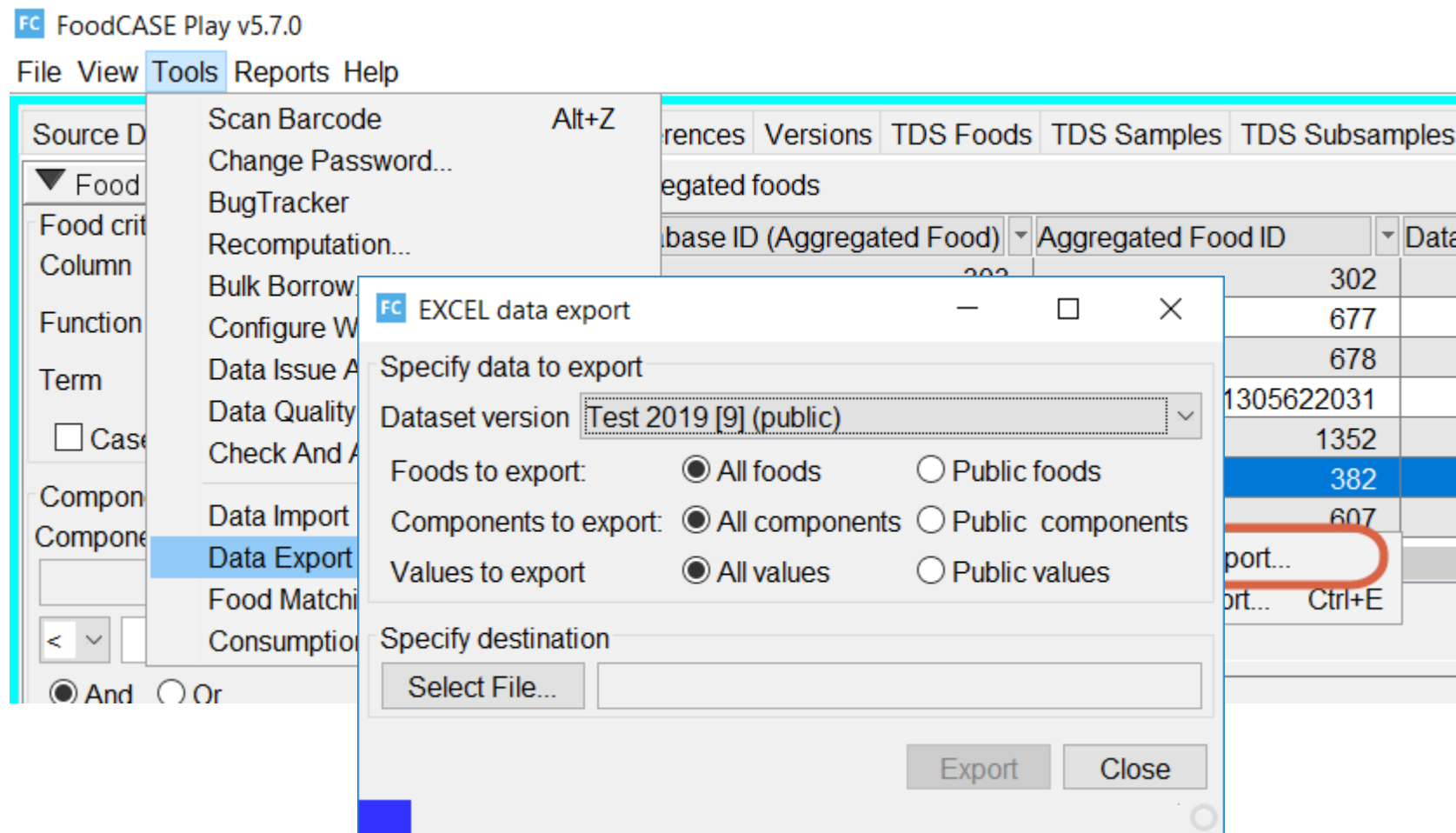
FDTP Export



Click on Export

Please note that a complete data version is downloaded and converted to XML. That takes some time.

Excel Export



Excel Export

Aggregated food detail, food id: 823[head [1]] / imported id: 1001335

File

Save Save & close Close

Food

Food id 823

Code

Name Banane, gedörrt

English name Banana, dried (banana chips)

Scientific name

Version head [1] **Public** ☒ Food match ☐ Recomputation ☒ Is Generic ☐

Markers Special Diets Other Properties Remarks Notes

Food Info Food Label Conversion Factors Food Names Categories

Description

Manufactured prepackaged food

Public food

Classification

EuroFIR classification

Nutrient Retention Factor Classification

Eurocode2 classification

Data quality evaluation

Nutrient Retention Factor Classification: Without a classification, all re...
If this food is used for recipe calculation, then density can be required.

Aggregated component detail

File

Save Save & close Close

Name Banane, gedörrt English name Banana, dried (banana chips)

Component alpha-carotene Code CARTA

Selected value 25 Aggr. value ID 39458

Unit microgram Matrix Unit per 100g edible portion

Calculation method Weighted mean **Public** ☒

Statistics Properties Remarks Contributing values References Markers Notes

Statistics

Weighted mean Median

Minimum Standard deviation

Maximum No. contributing values

Standards

Compliance

Date

Evaluation

Public component value

Data quality evaluation

Open in Data Quality Analy

Component detail, id: 55

File

Save Save & close Close

Component

Id 55 Code CHO

Standard unit g (gram) Required ☒ Editable ☐ Fatty Acid ☐

Dissemination

Public ☒ Sort order 3

Descriptor

carbohydrate

Calculation Synonyms Classification Scope Remarks Additional info Multilingual Descriptions

Significant digits 3

Rounding rules

Databa... Range ... Range To Scale Creation Creatio... Mutation Mutatio... Create... Edit...

Public component

Data quality evaluation

Generate report

FC
Generate a report based on the entities you selected

D...	Name	Description	Scope	With Selection	Entity				
21	Excel_AggrFood...	Reports all Aggregated Food Synonym Names in following columns [foodID, Name, English Nam...	FoodComp	<input checked="" type="checkbox"/>	AggregatedFood	...	...	...	...
23	Pdf_AggrFood_...	Reports all Aggregated Food Preferred Names in following columns [foodID, Name, English Nam...	FoodComp	<input checked="" type="checkbox"/>	AggregatedFood	...	...	...	...
25	Pdf_AggrFood_...	Reports all Aggregated Food Synonym Names in following columns [foodID, Name, English Nam...	FoodComp	<input checked="" type="checkbox"/>	AggregatedFood	...	...	...	...

Please select the file format of the report to be generated:
☒ PDF file
☐ Excel (XLS) file

Generate report
Close window



Exercises



Exercises

- 4a

Types of Import

- FDTP Import
- EXCEL Import

Three levels of food composition

Initial Data

Aggregated Data

Recipe Data

Apple

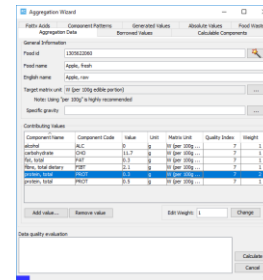
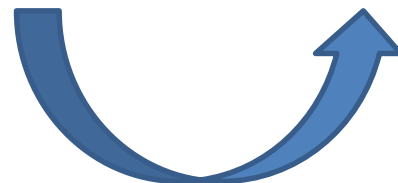
Protein 0.3 g/100g
Protein 200 mg/50g
...

Apple

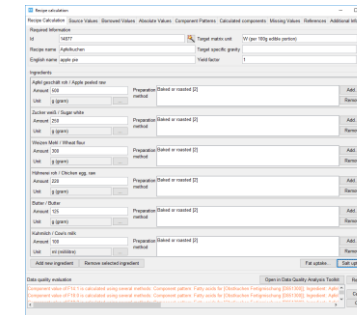
Protein 0.35 g/100g
Fat 0.3 g/100g
...
Energy 231.9 kJ/100 g

Apple Pie

Protein 2.68 g/100 g
Fat 4.86 g/100 g
...
Energy 560 kJ/100 g

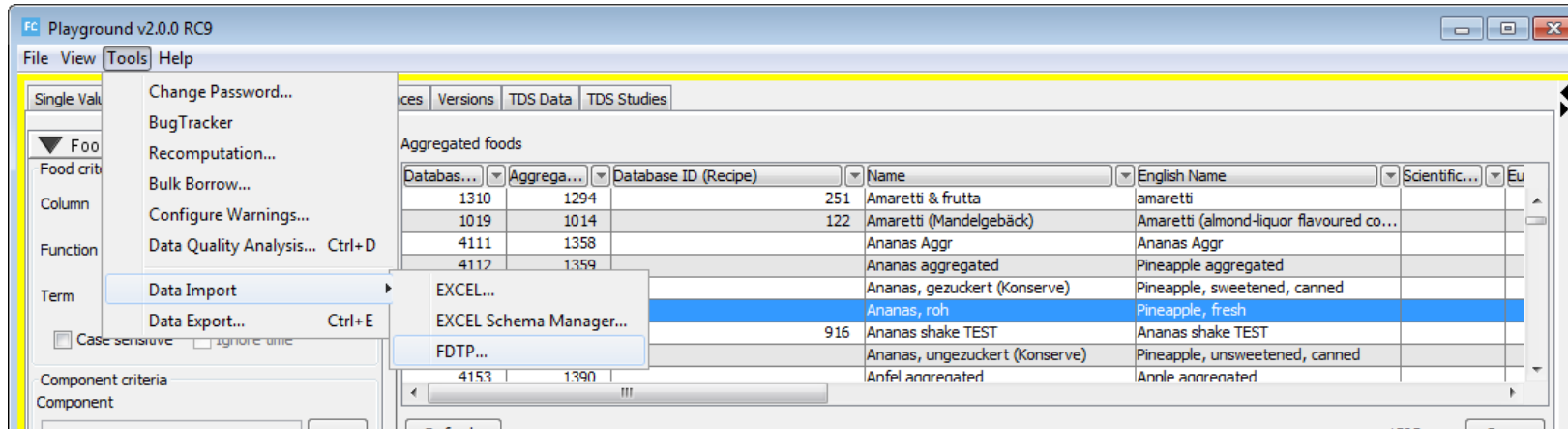


Aggregation wizard

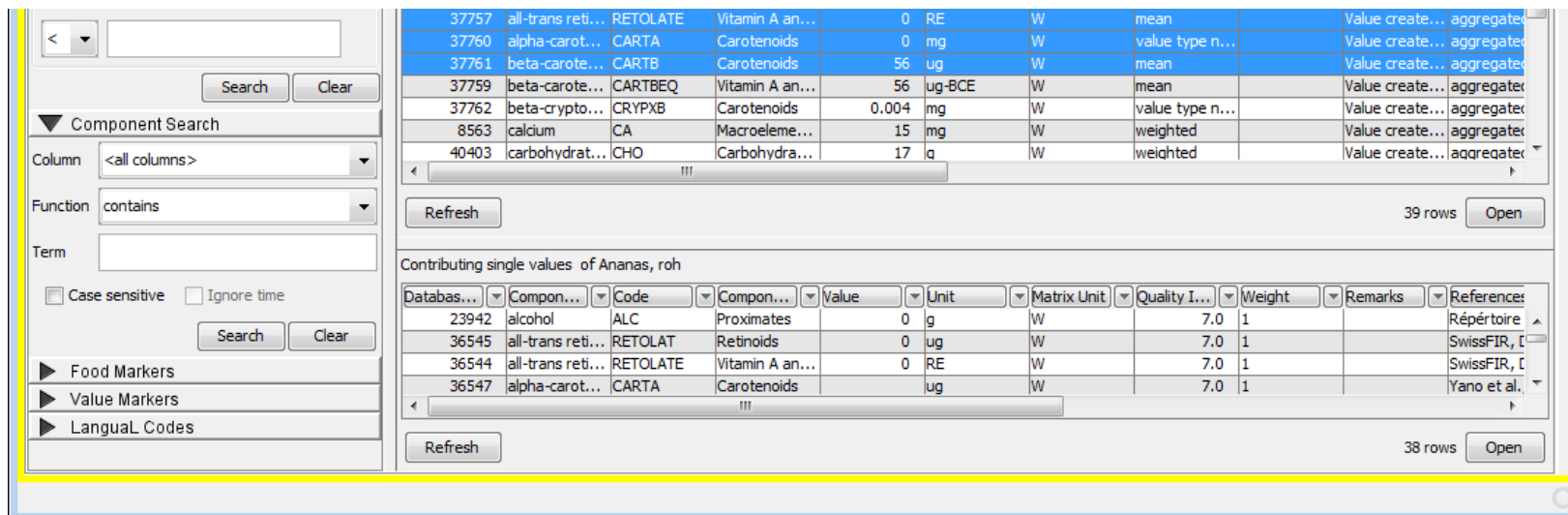


Recipe wizard

FDTP Import



Click on Tools -> Data Import -> FDTP...



FDTP Import

FDTP Import (not ready for usage)

Single foods and aggregated foods are imported into separate tables.

1. Select the FDTP file which you want to import.
2. Press the import button. The data will be imported.
3. Check the aggregated foods and correct the data in the detail view.
4. Click on the save button to store the data in the database.

Select FDTP File...

Import FDTP File

Data Preview

Aggregated Food

Name	English name	Name Scientific	Commercial Name	Generic Name	Idimportsource	Euro FIRClassifi...	Producer	Recipe Descript...

Aggregated Values

Acq...	Idco...	Idco...	Idm...	Idunit	Imp...	Met...	Met...	Met...	Maxi...	Mean	Median	Mini...	Sele...	Num...	Rem...	Sele...	Stan...	Stan...	Valu...

Data quality evaluation

Save

- Functionality exists but not yet tested

FDTP Import

FDTP Import (not ready for usage)

Single foods and aggregated foods are imported into separate data sets. Follow these steps:

1. Select the FDTP file which you want to import.
2. Press the import button. The foods and values are imported into the database. You can then adapt some values, double click the appropriate food or value and correct the data in the detail view that opens after.
3. Check the aggregated foods and the corresponding aggregated values after the import.

4. Click on the save button to save the data.

1. Select a file

Select FDTP File... C:\Users\kpresser\Desktop\test.xml

2. Click on Import FDTP

Import FDTP File

Data Preview

Aggregated Food

Name	English name	Name Scientific	Commercial Name	Generic Name	Idimportsource	Euro FIRClassific...	Producer	Recipe Description
Weizenvollkornbro...	Wholewheat bread				972			

3. Check data and quality feedback

Aggregated Values

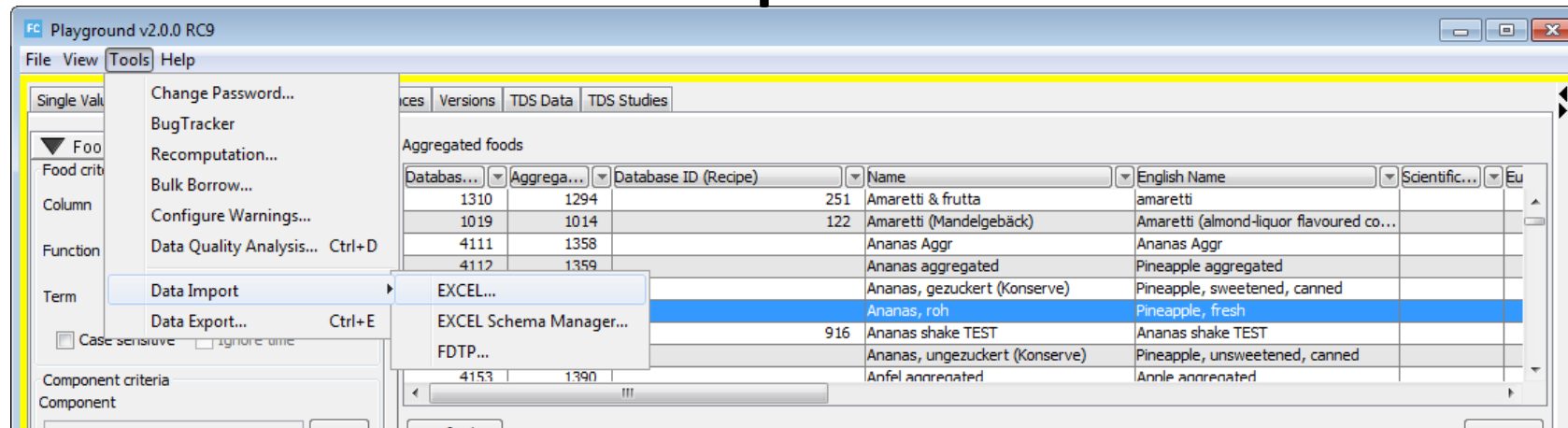
Acq...	Idco...	Idco...	Idm...	Idunit	Im...
Value ... iron, t...			(g)		
Value ... fatty ...			(W)	(g) gr...	
Value ... magn...			(W) p...	(mg) ...	
Value ... vitami...			(W) p...	(mg-A...	
Value ... calciu...			(W) p...	(mg) ...	

Data quality evaluation

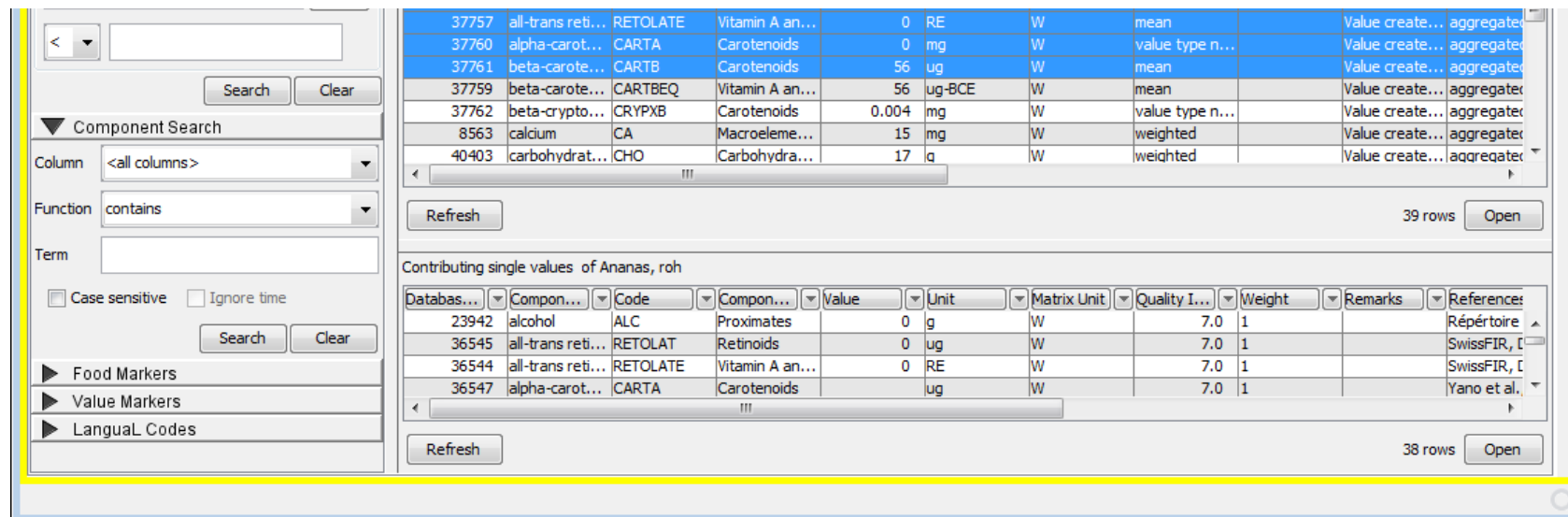
Save

Save button is disabled

EXCEL Import



Click on Tools -> Data Import -> EXCEL...



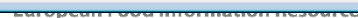
EXCEL Import

- Column-wise import

Food	PROT value	FAT value	...
Food1			
Food2			
...			

- Row-wise import

Food	Component	Value	...
Food1	PROT		
	FAT		
	...		



EXCEL Import

Data Import from EXCEL

Please select an EXCEL file and consider that the first sheet must contain your data and the first row must contain the column headers. Connect then the EXCEL columns with the FoodCASE fields in the tree using Drag-and-Drop or select the entries and click the 'Assign EXCEL column to FoodCASE field' button. Use the mapping buttons to load and save defined import mappings.

Select the EXCEL file to import

EXCEL File ... C:\Users\karl\CloudStation\Projects\Premotec - FoodCASE\Support\Training Workshops\NFSA 2019-02\Example Import Data.xlsx

EXCEL columns

- Column A: ID
- Column B: name D
- Column C: Synonym D
- Column D: name E
- Column E: Category
- Column F: RF Category
- Column G: specific gravity
- Column H: PROT
- Column I: PROT value type
- Column J: PROT unit
- Column K: PROT matrix unit**
- Column L: PROT reference
- Column M: PROT acquisition type
- Column N: PROT method type
- Column O: FAT
- Column P: FAT value type
- Column Q: FAT unit
- Column R: FAT matrix unit
- Column S: FAT reference
- Column T: FAT acquisition type
- Column U: FAT method type
- Column V: ALC
- Column W: ALC
- Column X: ALC
- Column Y: ALC
- Column Z: ALC
- Column AA: ALC
- Column AB: ALC
- Column AC: W
- Column AD: W
- Column AE: WATER unit

FoodCASE Fields

- Food
 - Source Food ID
 - Names
 - Name (Column H: PROT)
 - English name
 - Scientific name
 - Generic name
 - Commercial name
 - Brand name
 - Is generic
 - Other names
 - Other identifiers
 - Classification
 - Own classification
 - Marker
 - Labeling information
 - Other properties
 - Additional information
 - Components
 - PROT#1
 - Selected value (Column H: PROT)
 - Unit (Column J: PROT unit, data type: cc)
 - Matrix unit (Column K: PROT matrix unit)

Buttons

Add Name

Category

Add Marker

Unit Values

Component

Add Method

Add Reference

Add Default Value

1. Drag and drop EXCEL column to FoodCASE attributes

2. Add mapping detail information

Additional information

Please fill in some additional information about Value type

Thesaurus field: code

OK

Assign EXCEL column to FoodCASE field Delete Selected Entry Load Mapping... Save Mapping... Next > Cancel

EXCEL Import

EXCEL Import Wizard

Data Import from EXCEL

Please select an EXCEL file and consider that the first sheet must contain your data and the first row must contain the column headers. Connect then the EXCEL columns with the FoodCASE fields in the tree using Drag-and-Drop or select the entries and click the 'Assign EXCEL column to FoodCASE field' button. Use the mapping buttons to load and save defined import mappings.

Select the EXCEL file to import

EXCEL File ... C:\Users\karl\CloudStation\Projects\Premotec - FoodCASE\Support\Training Workshops\NFSA 2019-02\Example Import Data.xlsx

EXCEL columns

- Column A: ID
- Column B: name D
- Column C: Synonym D
- Column D: name E
- Column E: Category
- Column F: RF Category
- Column G: specific gravity
- Column H: PROT
- Column I: PROT value type
- Column J: PROT unit
- Column K: PROT matrix unit**
- Column L: PROT reference
- Column M: PROT acquisition type
- Column N: PROT method type
- Column O: FAT
- Column P: FAT value type
- Column Q: FAT unit
- Column R: FAT matrix unit
- Column S: FAT reference
- Column T: FAT acquisition type
- Column U: FAT method type
- Column V: ALC
- Column W: ALC value type
- Column X: ALC unit
- Column Y: ALC matrix unit
- Column Z: ALC reference
- Column AA: ALC acquisition type
- Column AB: ALC method type
- Column AC: WATER
- Column AD: WATER value type
- Column AE: WATER unit

FoodCASE Fields

- Food
 - Source Food ID (Column A: ID)
 - Names
 - Name (Column B: name D)
 - English name (Column D: name E)
 - Scientific name
 - Generic name
 - Commercial name
 - Brand name
 - Is generic
 - Other names
 - Other identifiers
 - Classification
 - Own classification
 - Marker
 - Labeling information
 - Other properties
 - Additional
 - Components
 - PROT#1
 - Selected value (Column H: PROT)
 - Unit (Column J: PROT unit, data type: code)
 - Matrix unit (Column K: PROT matrix unit, data type: code)
 - Value type (Column I: PROT value type, data type: code)**
 - Acquisition type
 - Method type
 - Year of generation
 - Further generation date info
 - Generated by
 - Evaluation date
 - Evaluation by
 - Remarks
 - Id import source

Assign EXCEL column to FoodCASE field Delete Selected Entry Load Mapping... Save Mapping... Next > Cancel

**Add
additional
FoodCASE
attributes as
needed**

**Store and
use
mappings**

EXCEL Import

FC EXCEL Import Wizard

Import Settings

Source Food Import

☒ Import new foods with unique FoodIDs, Names and Food Codes

☐ Import new foods and update existing ones basing on common FoodIDs, Names and Food Codes

Source value import

☒ Import new Component Values or add Analytical Values, Methods or References to existing ones

☐ Import new Component Values and update existing ones basing on Component (old values for these components will be removed)

☐ Import new Component Values and remove ALL old Component Values for imported Foods

What data should be grouped into a single Component Value

☐ Analytical values

☐ Methods

☐ References

Add markers to foods

Existing marker(s)

- Single Food
 - SGE-BAG
 - NANUSS privat
 - to be checked by PC
 - NANUSS
 - NANUSS public

Assigned marker(s)

Add markers to values

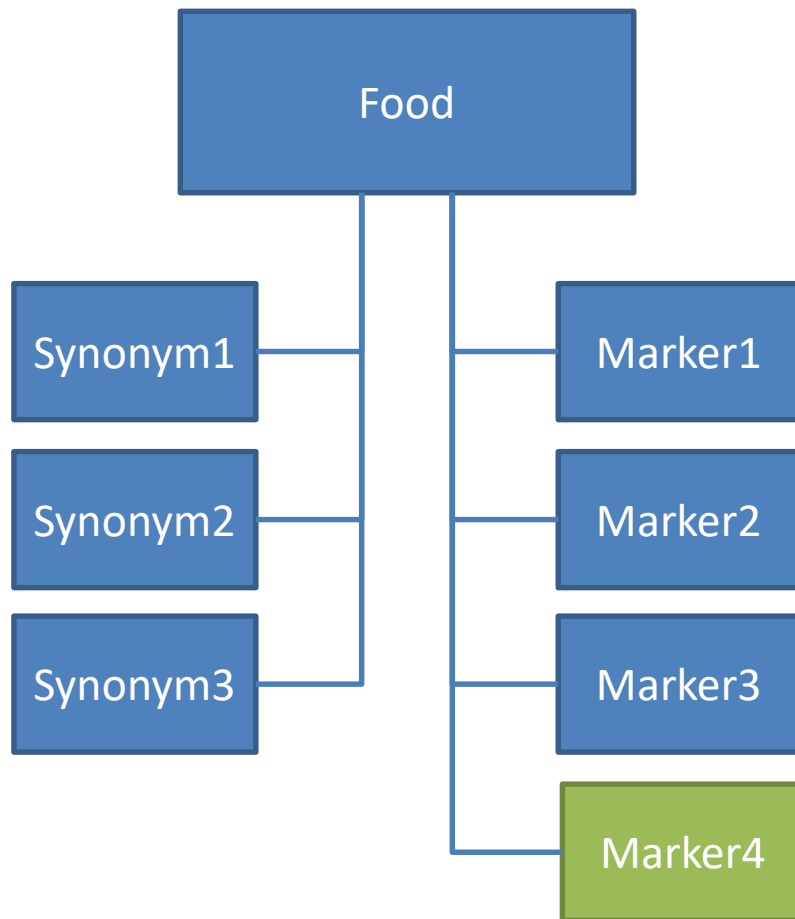
Existing marker(s)

- Single Value
 - Paolo
 - Recipe with no ingredients
 - SGE-BAG
 - NANUSS privat
 - NANUSS public

Assigned marker(s)

< Back Next > Cancel

EXCEL Import



What about collections of a food?

In a collection it is not clear if you want to replace

- none
- one or
- multiple

entries. Therefore, only insert is implemented.

The only exception is preferred synonym, which is replaced, other entries are added.

EXCEL Import

FC EXCEL Import Wizard

Import Settings

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☐ Analytical values

☐ Methods

☐ References

Add markers to foods

Existing marker(s)

- Single Food
 - SGE-BAG
 - NANUSS privat
 - to be checked by PC
 - NANUSS
 - NANUSS public

Assigned marker(s)

Add markers to values

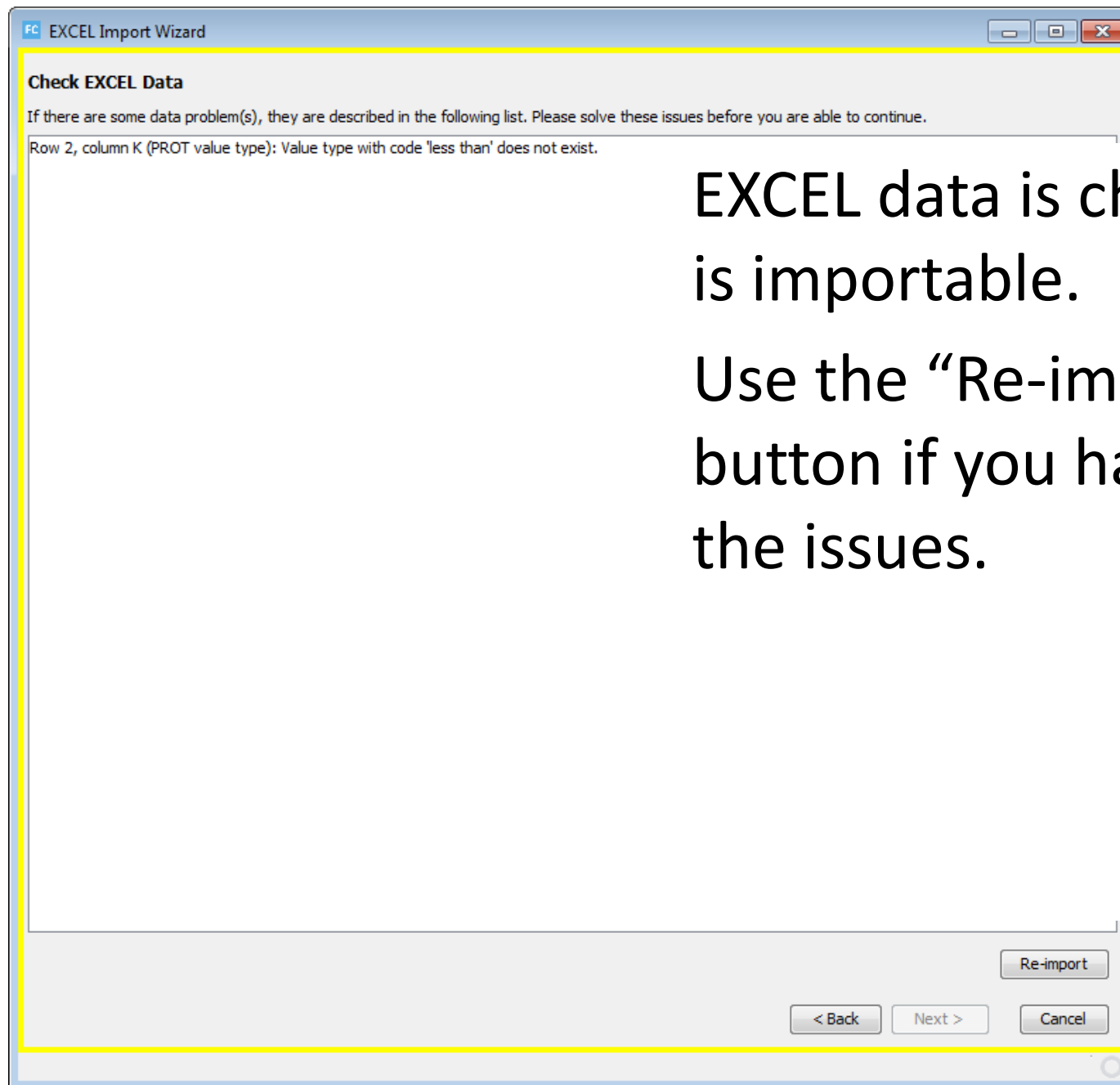
Existing marker(s)

- Single Value
 - Paolo
 - Recipe with no ingredients
 - SGE-BAG
 - NANUSS privat
 - NANUSS public

Assigned marker(s)

< Back Next > Cancel

< only in row-wise



EXCEL data is checked if it is importable.

Use the “Re-import” button if you have fixed the issues.

EXCEL Import Wizard

Data Preview

Imported Single Foods

Food Id	Name	English N...	Brand N...	Commer...	Generic ...	Import
5000	EXCEL Impo...	EXCEL Impo...				

Imported Single Values

Id	Compon...	Compon...	Selected...	Unit	Matrix Unit	Value
	PROT	protein, total	0.5			less th

Data quality evaluation

Food 'EXCEL Imported Food 3' component 'PROT' attribute 'unit': Mandatory field empty.
 Food 'EXCEL Imported Food 3' component 'PROT' attribute 'matrix unit': Mandatory field empty.
 Food 'EXCEL Imported Food 3' component 'PROT' attribute 'acquisition type': Mandatory field empty.
 Food 'EXCEL Imported Food 3' component 'PROT' attribute 'method type': Mandatory field empty.

Revalidate

< Back Save Cancel

- Presented data can be opened by double click and data can be changed.
- Solve all quality issues before you can save.
- Revalidate is sometimes necessary because some of the quality checks needs some performance. (Unique name and unique English name within dataset.

EXCEL Import Wizard

Import Settings

Source Food Import

☒ Import new foods with unique FoodIDs, Names and Food Codes

☐ Import new foods and update existing ones basing on common FoodIDs, Names and Food Codes

Source Value Import

☒ Import new Component Values or add Analytical Values, Methods or References to existing ones

☐ Import new Component Values and update existing ones basing on Component (old values for these components will be removed)

☐ Import new Component Values and remove ALL old Component Values for imported Foods

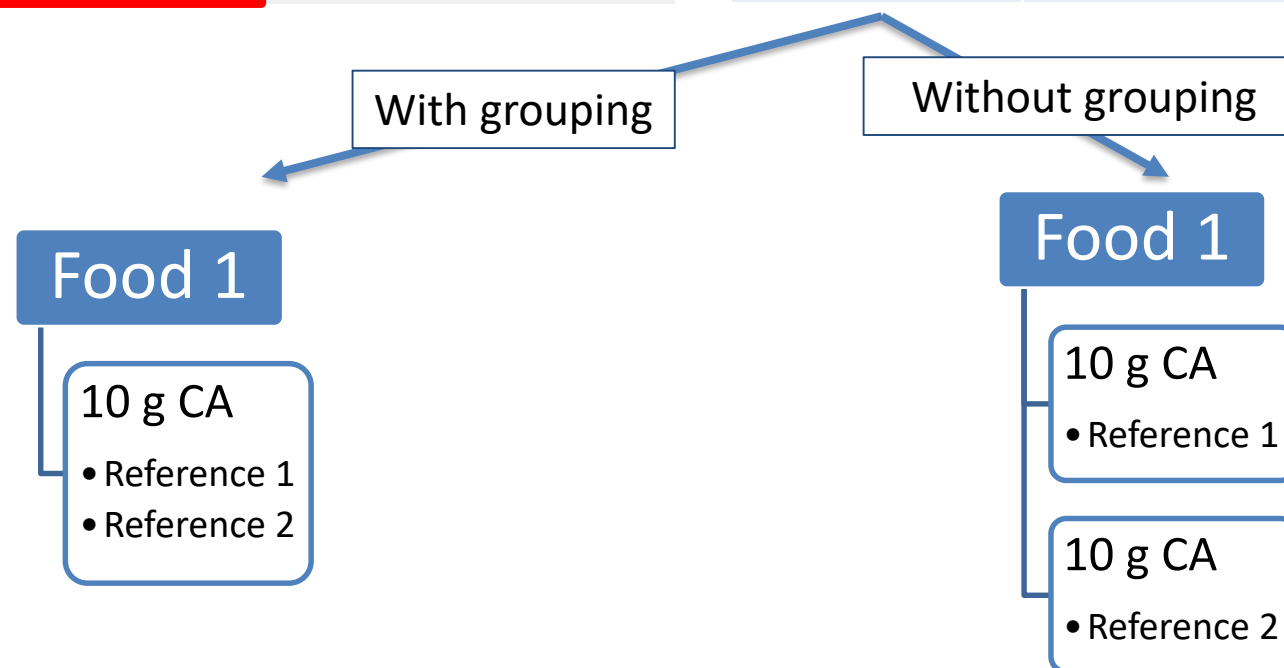
What data should be grouped into a single Component Value

☐ Analytical values

☐ Methods

☐ References

Food Name	Component	Reference
Food 1	10 g CA	Reference 1
Food 1	10 g CA	Reference 2



EXCEL Import Exercise



Exercises

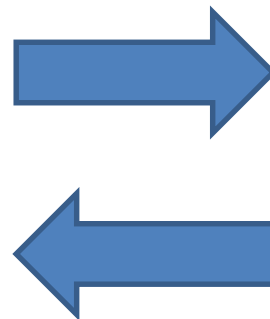
- 4b
- **Note:** Please do not save data as everyone is using the same files.

LanguaL

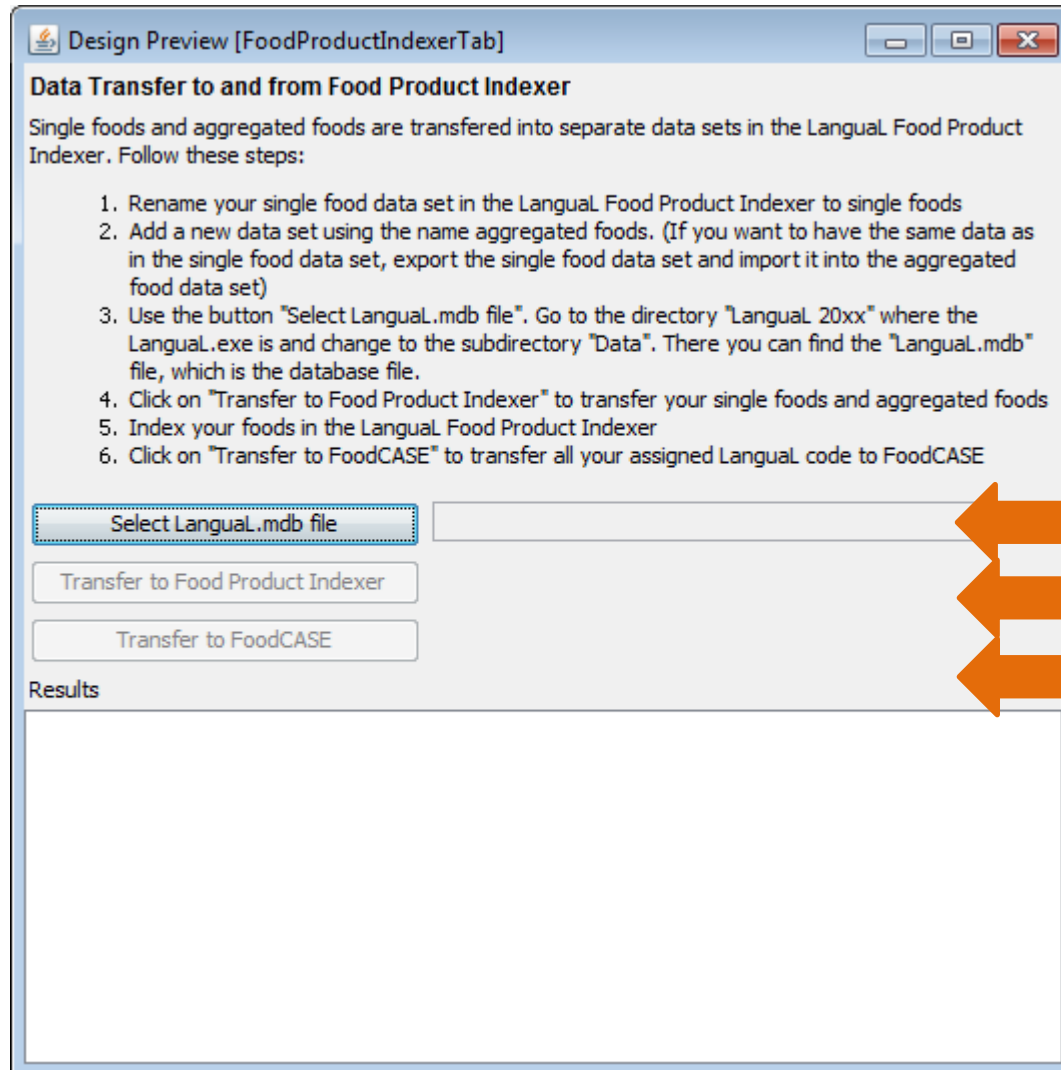
LanguaL and Food Product Indexer

FoodCASE has a functionality to export single foods and aggregated foods to the Food Product Indexer.

Foods can then be indexed there and loaded back to FoodCASE.



LanguaL and Food Product Indexer



Select file to export
 Export to FPI
 Import from FPI

Data quality analysis

The Spinach Popeye Iron Decimal Error Story (SPIDES)

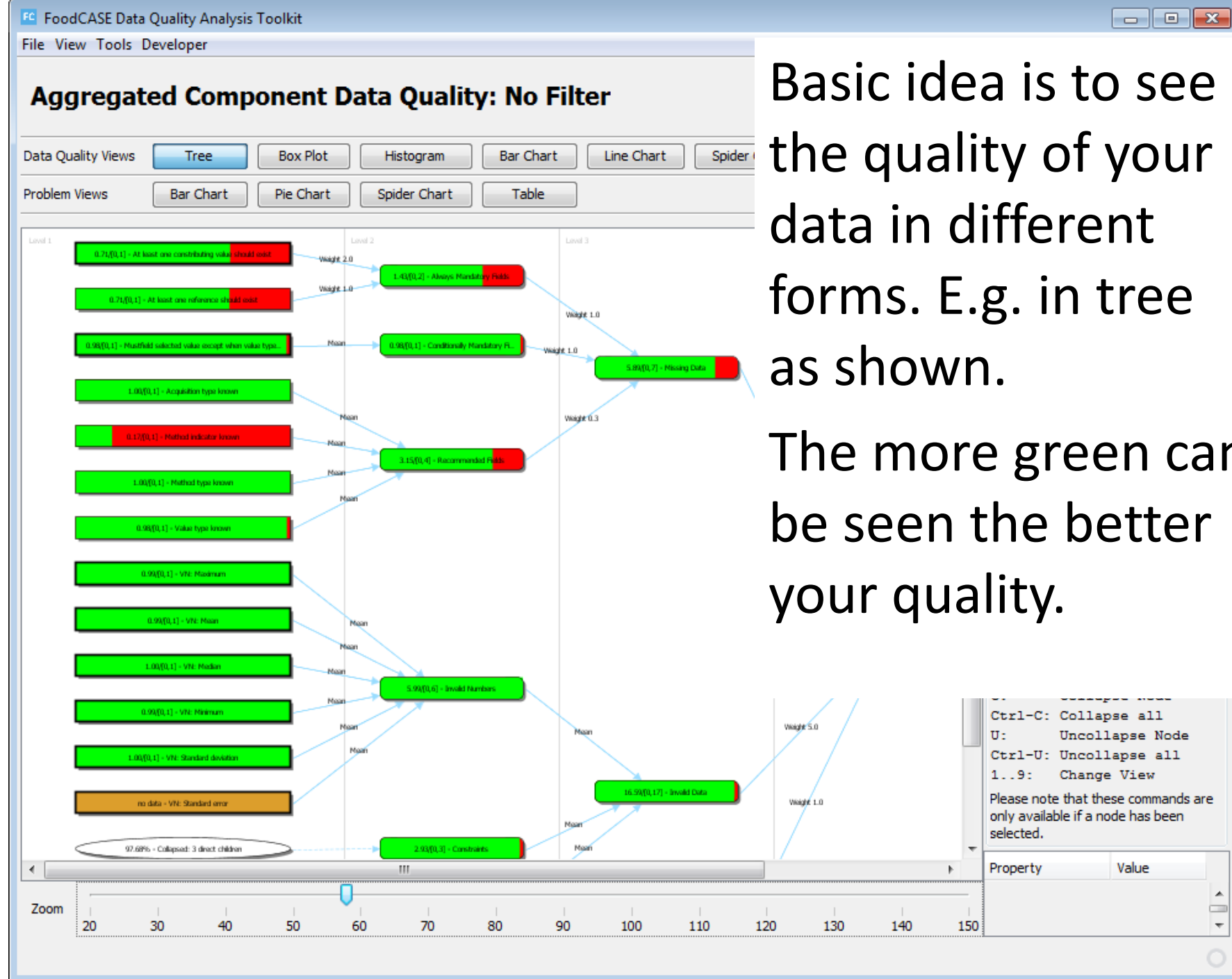
TABLE I
Inorganic Iron Content of Biological Materials As Determined by Bipyridine Method with Different Concentrations of Acetic Acid

Material	α, α' -Bipyridine analysis							
	Total Fe	Buffer pH 5	2 per cent acetic acid	4 per cent acetic acid	10 per cent acetic acid	20 per cent acetic acid	30 per cent acetic acid	50 per cent acetic acid
	mg. per gm.	mg. per gm.	mg. per gm.	mg. per gm.	mg. per gm.	mg. per gm.	mg. per gm.	mg. per gm.
Pork liver (fresh)	0.10	0.037	0.008	0.106	0.124	0.127	0.127	0.136
Beef "								0.056
Pork heart								
Beef "	0.23	0.10		0.157	0.158	0.158		
Soy beans (not roasted)....	0.090	0.055		0.071	0.073	0.075		
" " (roasted).....	0.10	0.046		0.055	0.061	0.060		
Beef skeletal muscle (dry)..	0.142	0.064		0.074	0.075	0.073		
Oysters (dry).....	0.32	0.067		0.080	0.080	0.085		
Blood (rats).....	0.47				0.050	0.052		
Alfalfa.....	0.132	0.034		0.036	0.036	0.036		
Mead's cereal.....	0.050	0.016		0.015	0.017	0.018		0.018
Northwestern yeast.....	0.43	0.27		0.28	0.28	0.27	0.27	
Spinach.....	0.53	0.107			0.120	0.125		

Spinach.....0.53



Sherman, W.C. Elvehjem, C.A. and Hart.E.B. (1934). Further Studies on the Availability of Iron in Biological Materials. *The Journal of Biological Chemistry*. Vol. 107. NO. 3. pp383-394



Basic idea is to see the quality of your data in different forms. E.g. in tree as shown.

The more green can be seen the better your quality.

Tree structure of data quality requirements

Requirements:

At least one reference should exists

Maximum value \geq mean value

161 data quality requirements are available in FoodCASE.

Requirement Classification

Classification scope:

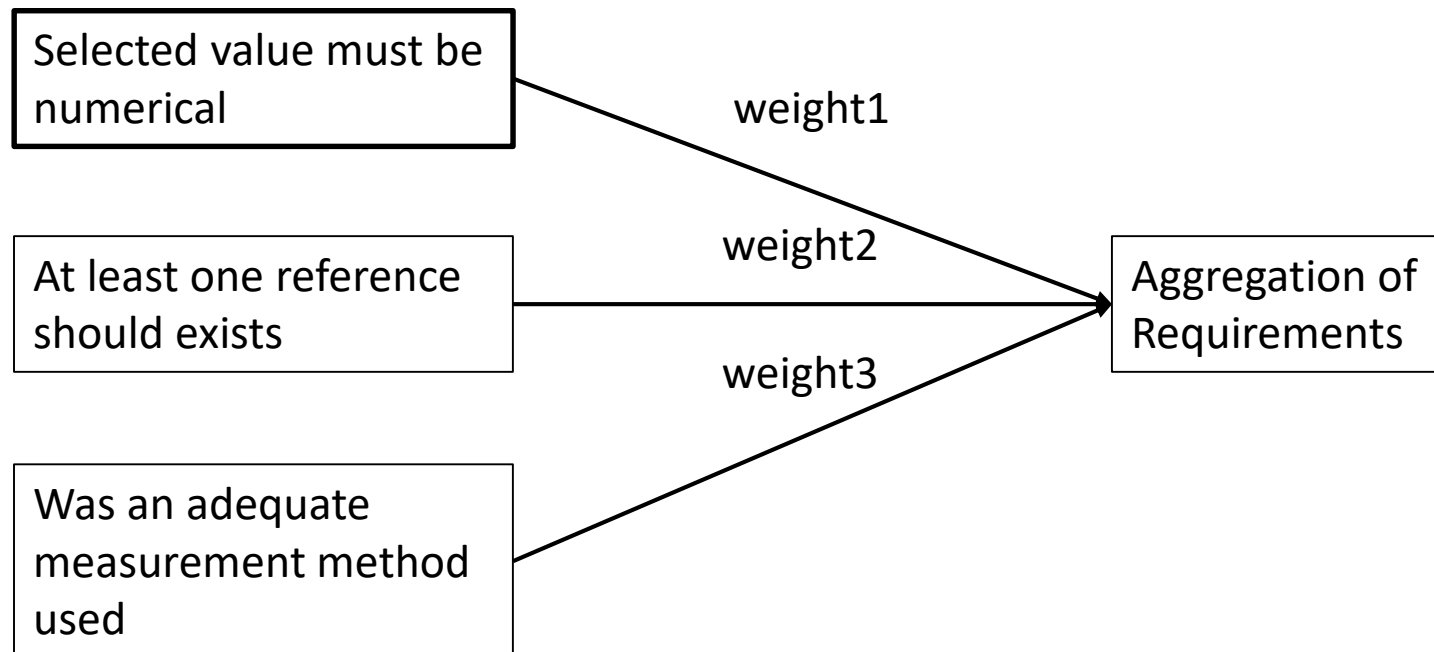
Hard constraint	Soft constraint	Indicator
<div>Selected value must be numerical</div>	<div>At least one reference should exists</div>	<div>Was an adequate measurement method used</div>

It is known that
quality is influenced

It is **NOT** known if
quality is influenced
but it is assumed

RODQ Schema

Requirement-Oriented Data Quality Schema (RODQ):



Evaluation of Requirement

Selected value must be numerical

Possible values: true/false or 1/0

Was an adequate measurement method used

Possible values:

Method 1: 0

Method 2: 0.5

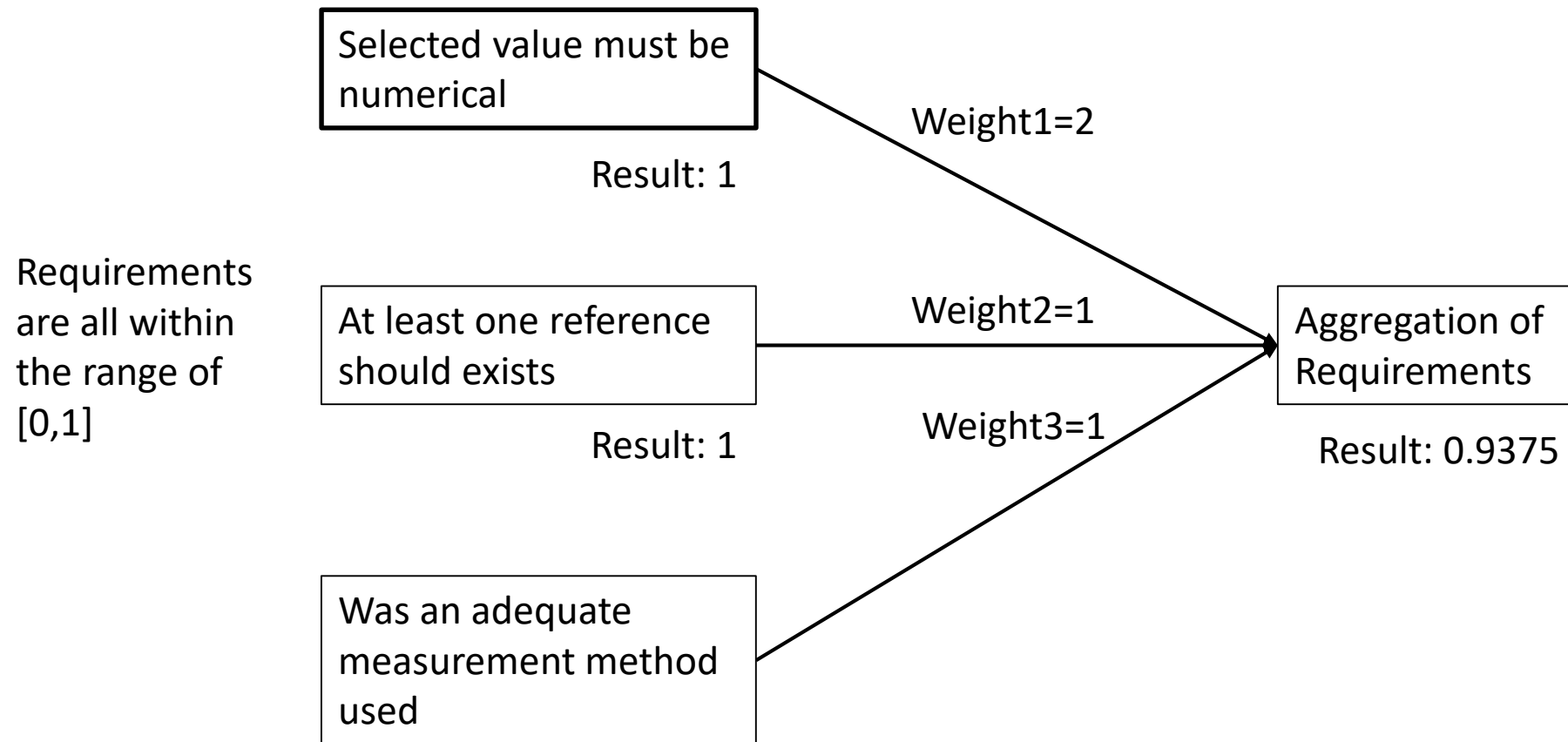
Method 3: 0.75

Method 4: 1

Note: It is recommended that possible values are in the range from 0 to 1.

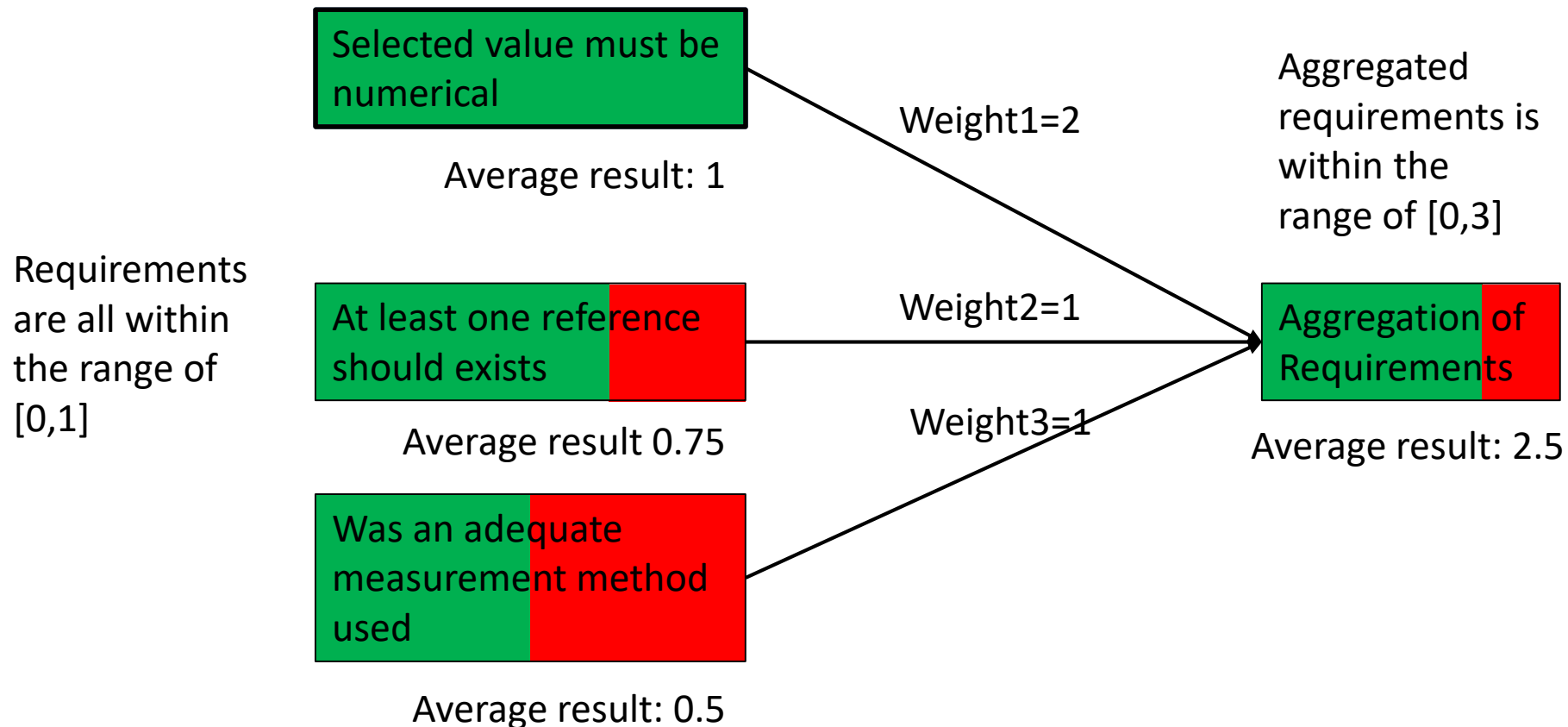
Evaluation of RODQ Schema

The evaluation of a RODQ schema for a vitamin C value of an apple would look like:



Evaluation of RODQ Schema

The evaluation of a RODQ schema for **all values of all foods** in the DB would look like:



Aggregated Component Data Quality: No Filter

Data Quality Views

Tree

Box Plot

Histogram

Bar Chart

Line Chart

Spider Chart

Tree Table

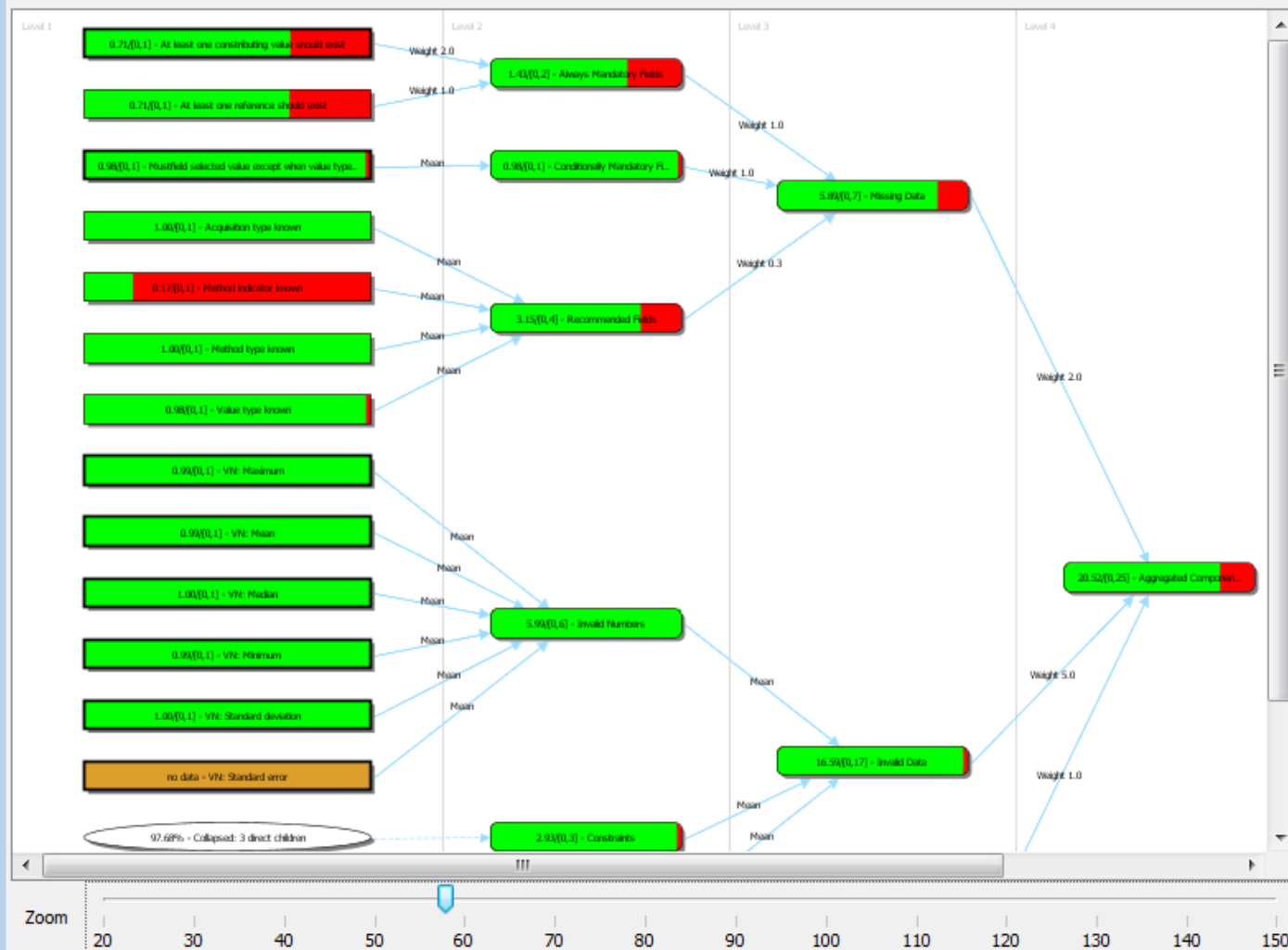
Problem Views

Bar Chart

Pie Chart

Spider Chart

Table



View Options

☐ Percentage Scale☒ User-defined Scale☒ Rotate☒ Follow Selection☒ Draw Swim Lanes

View Description

The data quality tree view shows the entire data quality tree. Each node is labeled with the mean data quality. Nodes (and edges) can be selected by clicking on them. A table will appear which shows the statistical properties of the selected node. You can use the buttons on top or the context menu (right click) to switch to another view. The lowest level can be collapsed/uncollapsed using the context menu.

Keyboard shortcuts:

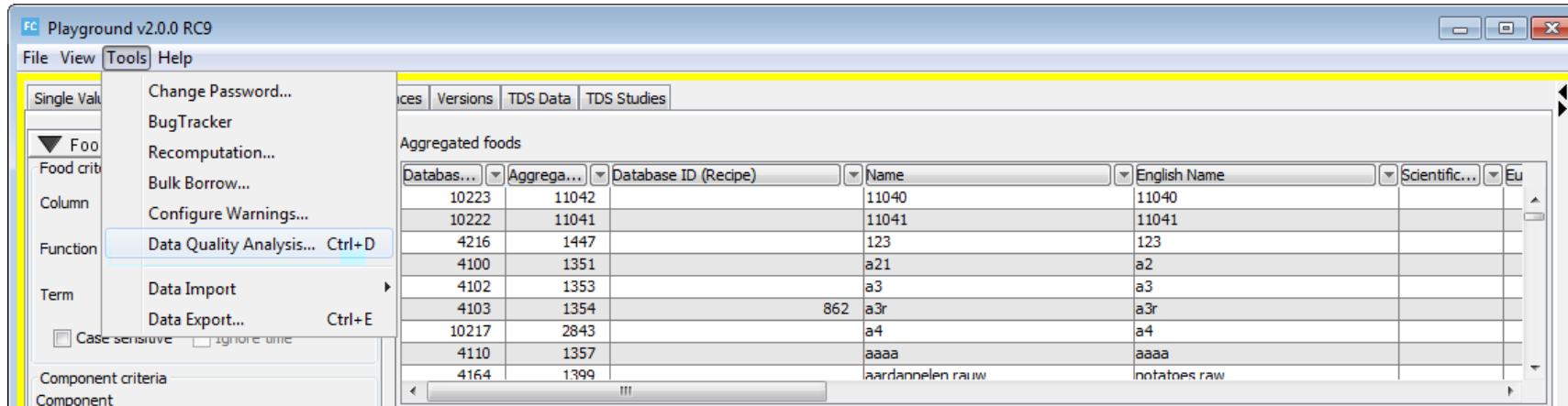
C: Collapse Node
 Ctrl-C: Collapse all
 U: Uncollapse Node
 Ctrl-U: Uncollapse all
 1..9: Change View

Please note that these commands are only available if a node has been selected.

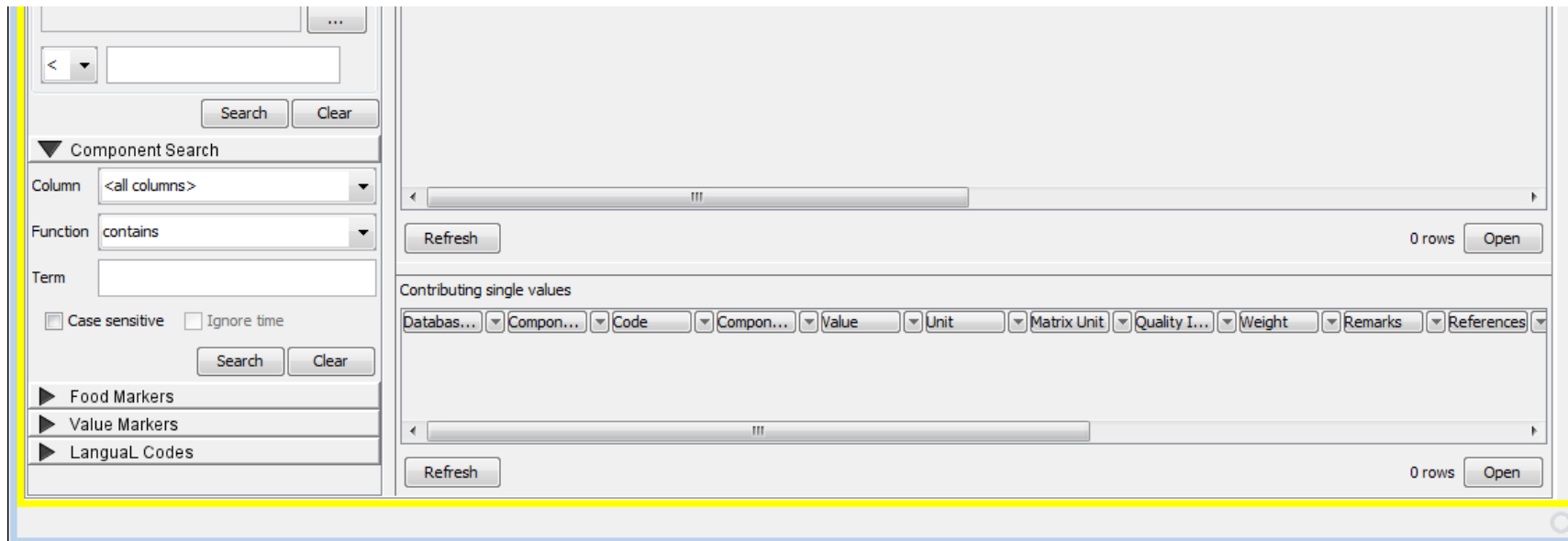
Property

Value

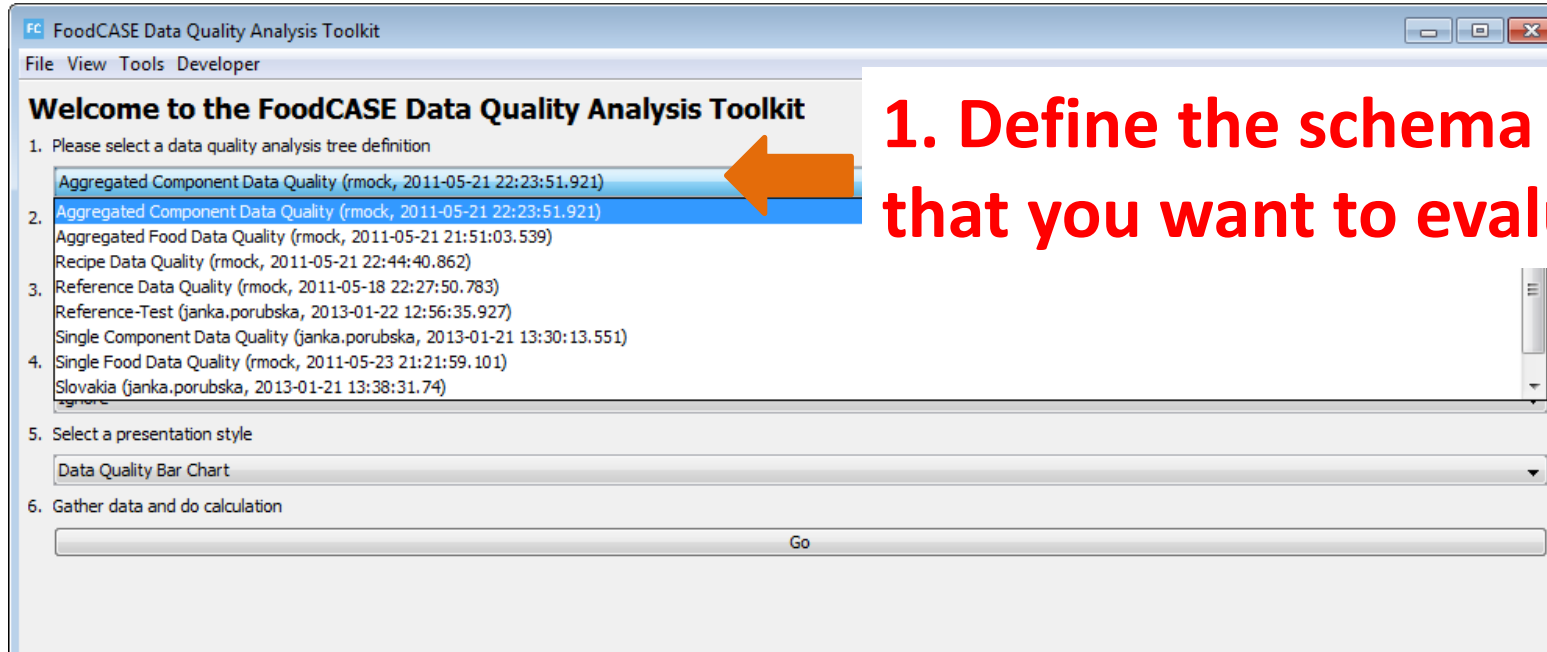
How to get to Evaluation



Click on Tools -> Data Quality Analysis

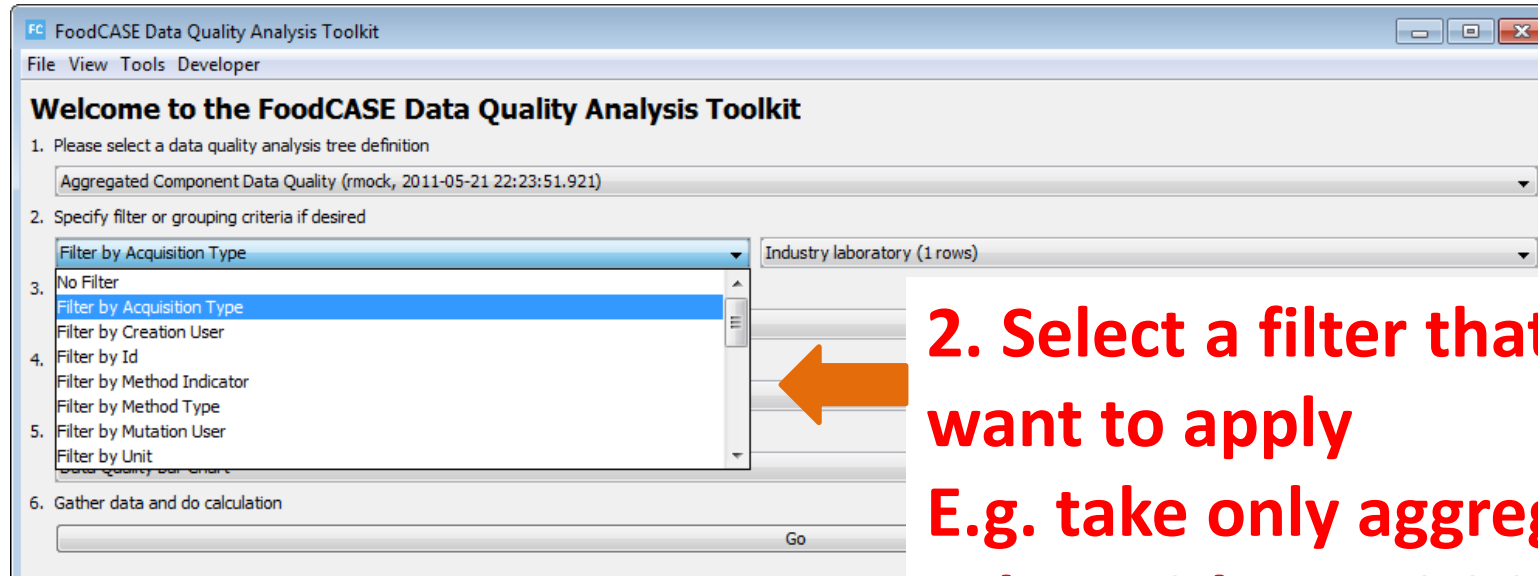


RODQ Evaluation



**1. Define the schema (tree)
that you want to evaluate**

RODQ Evaluation



2. Select a filter that you want to apply
E.g. take only aggregated value with acquisition type = Industry laboratory

RODQ Evaluation

FoodCASE Data Quality Analysis Toolkit

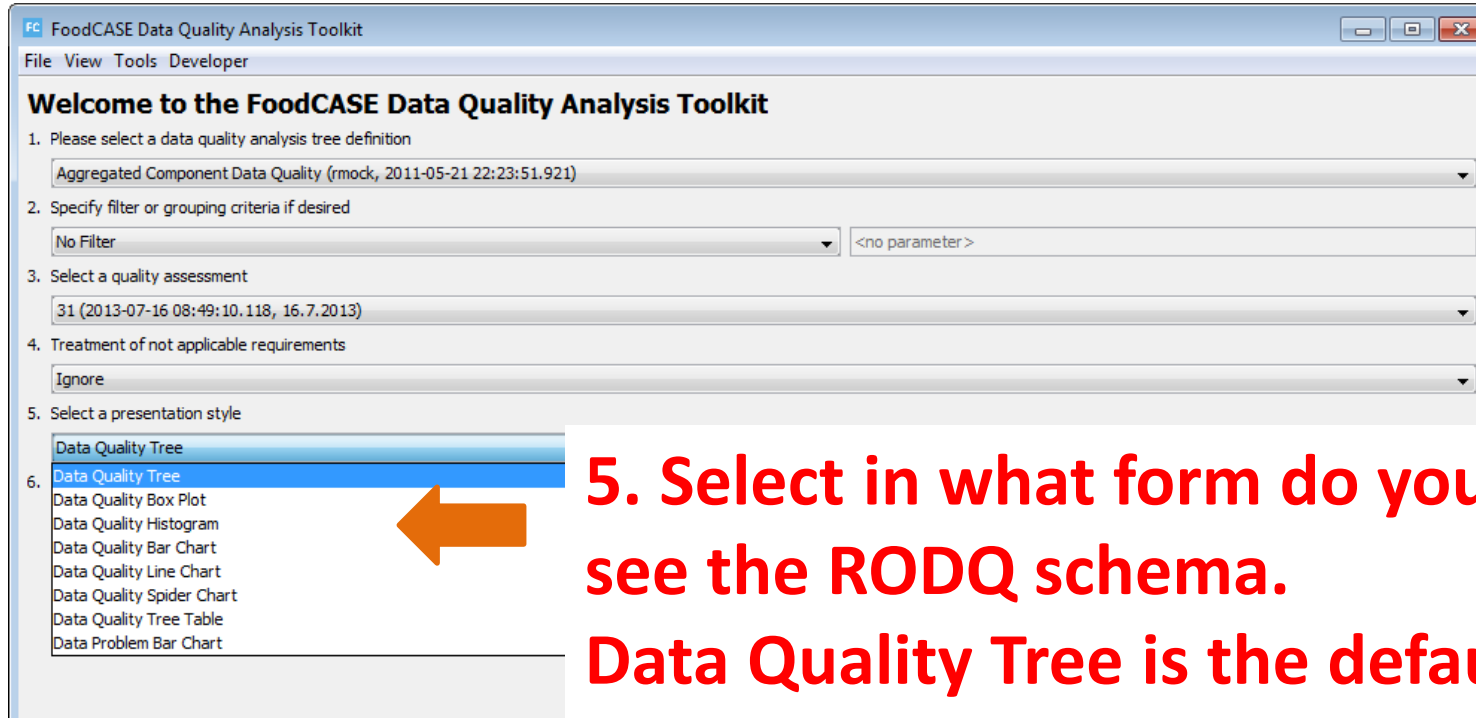
File View Tools Developer

Welcome to the FoodCASE Data Quality Analysis Toolkit

- Please select a data quality analysis tree definition
 Aggregated Component Data Quality (rmock, 2011-05-21 22:23:51.921)
- Specify filter or grouping criteria if desired
 No Filter <no parameter>
- Select a quality assessment
 31 (2013-07-16 08:49:10.118, 16.7.2013)
 31 (2013-07-16 08:49:10.118, 16.7.2013)
 30 (2013-02-18 11:55:22.095, test 18.2.13)
 28 (2013-02-15 15:40:33.959, test .2.13)
 27 (2013-02-13 16:58:06.966, Test 3)
 26 (2013-01-18 14:15:38.568, test 2)
 25 (2013-01-17 21:31:06.673, test 1)
- Gather data and do calculation
 Go

3. Select a quality assessment run

RODQ Evaluation



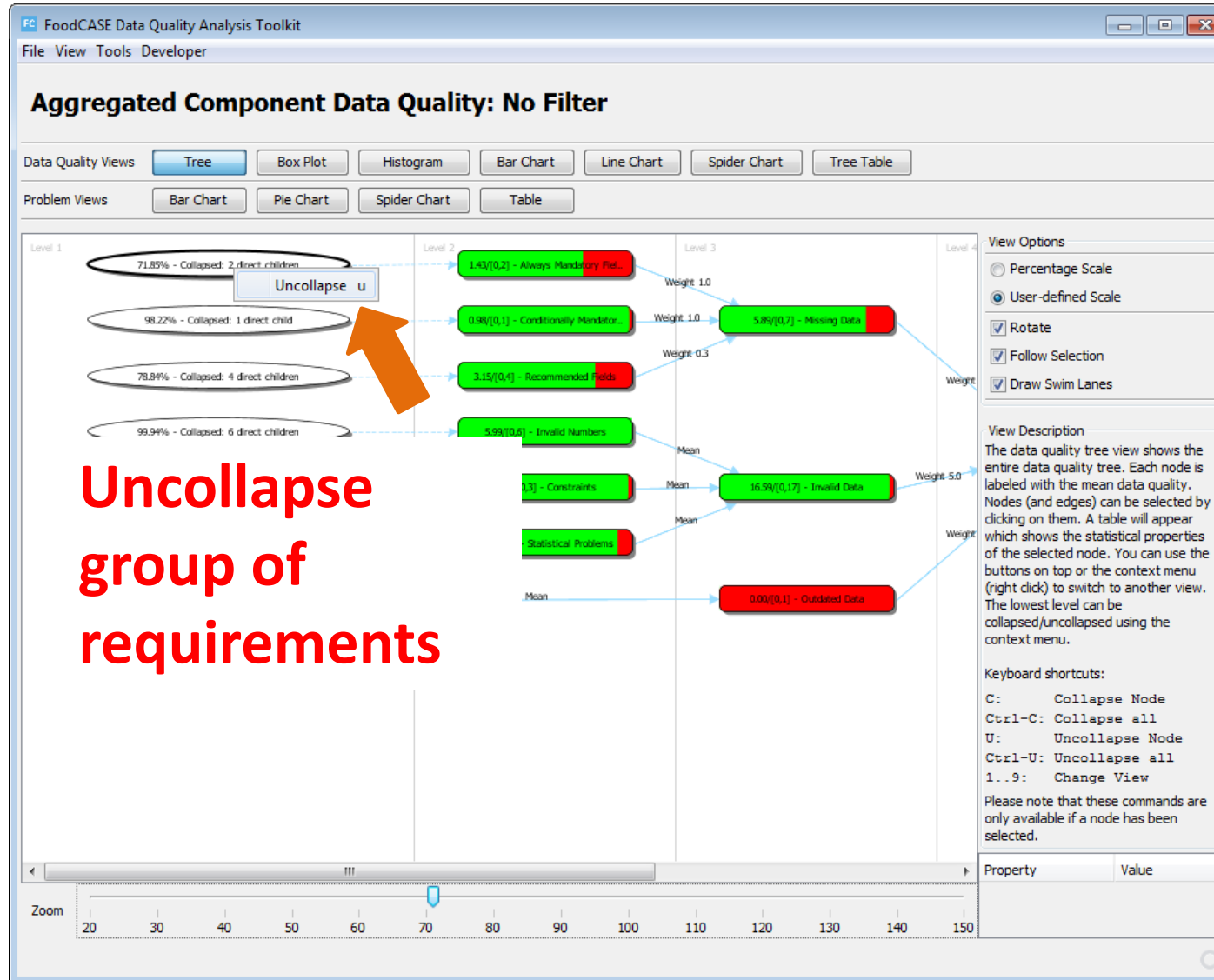
Welcome to the FoodCASE Data Quality Analysis Toolkit

1. Please select a data quality analysis tree definition
Aggregated Component Data Quality (rmock, 2011-05-21 22:23:51.921)
2. Specify filter or grouping criteria if desired
No Filter <no parameter>
3. Select a quality assessment
31 (2013-07-16 08:49:10.118, 16.7.2013)
4. Treatment of not applicable requirements
Ignore
5. Select a presentation style
Data Quality Tree
6. **Data Quality Tree**
Data Quality Box Plot
Data Quality Histogram
Data Quality Bar Chart
Data Quality Line Chart
Data Quality Spider Chart
Data Quality Tree Table
Data Problem Bar Chart

5. Select in what form do you want to see the RODQ schema.
Data Quality Tree is the default and you can later switch the presentation style.

6. Click on Go

RODQ Evaluation

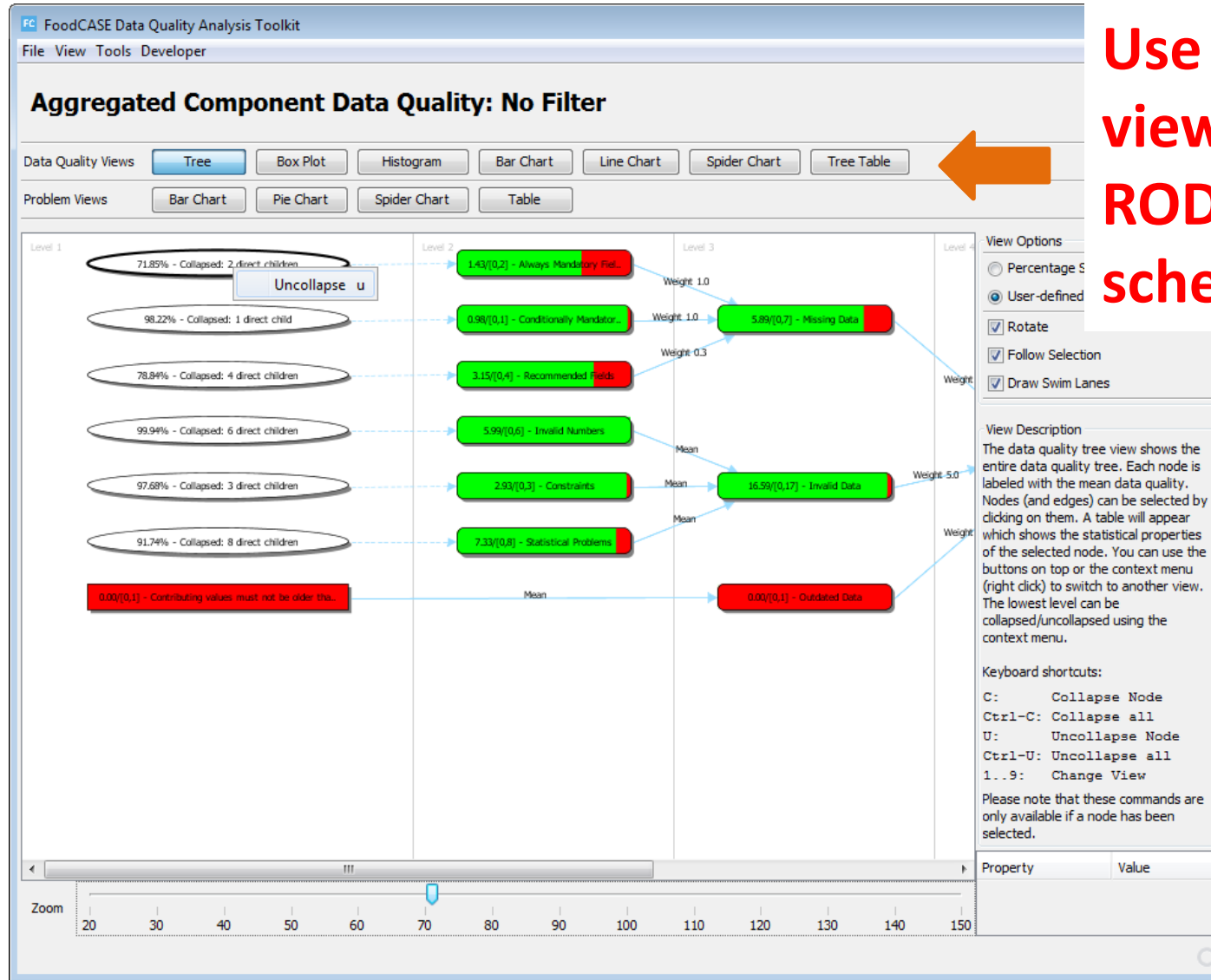


**Uncollapse
group of
requirements**



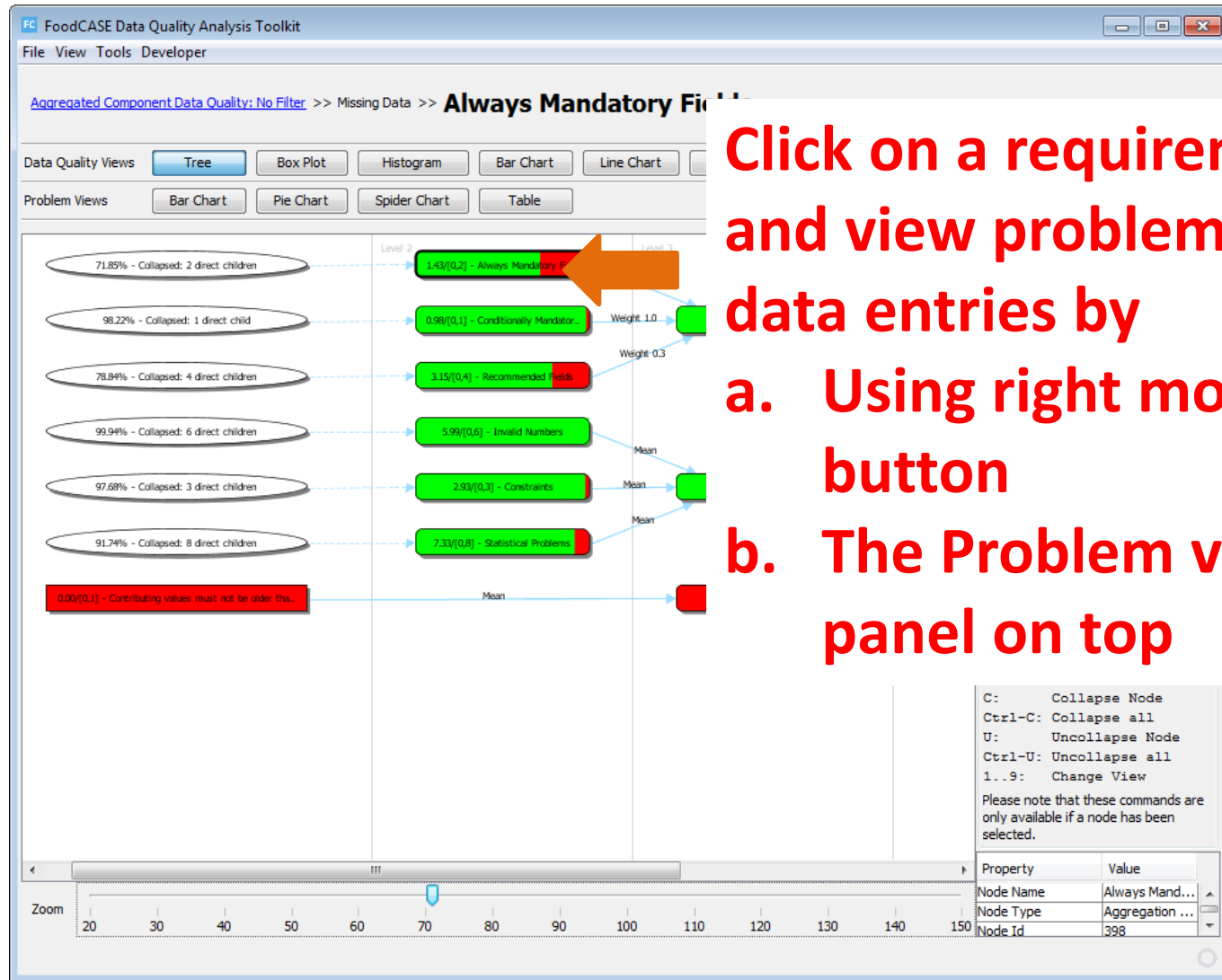
**Use and see
all
descriptions
on the right
panel.**

RODQ Evaluation



Use different views of RODQ schema.

Analyse Details



Click on a requirement and view problematic data entries by

- Using right mouse button
- The Problem view panel on top

Analyse Details

FoodCASE Data Quality Analysis Toolkit

File View Tools Developer

Aggregated Component Data Quality: No Filter >> Missing Data >> **Always Mandatory Fields**

Data Quality Views: **Tree** Box Plot Histogram Bar Chart Line Chart Spider Chart Tree Table

Problem Views: Bar Chart Pie Chart Spider Chart **Table**

Aggregated components

Databas...	Compon...	Code	Compon...	Value	Unit	Matrix Unit	Value Type	Source F...	Source F...
124700	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42067	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42831	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
125909	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
41539	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
123883	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42553	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
125727	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
124537	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
43046	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
125899	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
41814	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
41408	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
126103	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
43136	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
123647	13-cis retinol	RETOL13	Retinoids	0.00000	mg	W	weighted	Value create...	
41493	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42954	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
126287	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
41723	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
41632	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
41768	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
125937	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
125685	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42021	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
123622	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42506	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
126783	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42879	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	
42113	13-cis retinol	RETOL13	Retinoids	0	mg	W	weighted	Value create...	

Refresh 12037 rows Open

View Options

☐ Percentage Scale

☒ User-defined Scale

Threshold: 1.04/[0,2]

☒ Lower than (show bad data)

☐ Higher or equal (good data)

View Description

The problem table view lists all data records for the selected tree node which have a quality less then the threshold specified. The threshold can be changed using the slider above.

See data records that have bad or good data quality.

You can open the data record.

Data Quality Exercise



Exercises

- 4c

Data Issue Analysis

Data Issue Analysis

- Check your data with your own tests
- Different types
 - Equation: $\text{PROT}[\text{g}] = \text{PROTAN}[\text{g}] + \text{PROTPL}[\text{g}] (\pm 5\%)$
 - Range: $0[\text{g}] < \text{ALC} < 30[\text{g}]$
 - Version: Compare values to former version
 - SQL: User create own SQL queries

FC
Data Issues Wizard

Select checks to run

Please select checks that should be executed. Checks can be created and updated in the Admin tool.

Type	Name	Description	Condition	Run check
Equation	Dietary folate equivalent		$FOL[\mu g] = FOLFD[\mu g] + 1.7 * FOLAC[\mu g] (\pm 0\%)$	<input type="checkbox"/>
Equation	DHA		$F22:6[g] \leq FAN3[g] (\pm 0\%)$	<input type="checkbox"/>
Equation	EPA		$F21:5N3[g] \leq FAN3[g] (\pm 0\%)$	<input type="checkbox"/>
Equation	ALA		$ALA[g] \leq FAN3[g] (\pm 0\%)$	<input type="checkbox"/>
Equation	FAN6		$FAN6[g] \leq FAPU[g] (\pm 0\%)$	<input type="checkbox"/>
Equation	FAN3		$FAN3[g] \leq FAPU[g] (\pm 0\%)$	<input type="checkbox"/>
Equation	Retinol activity equivalent		$NV_VITA_RAE[\mu g] = RETOL[\mu g] + 0.08 * CARTB[\mu g] + 0.04 * CARTA[\mu g] + 0.04 * ...$	<input type="checkbox"/>
Equation	Linoleic acid		$F18:2CN6[g] \leq FAPU[g] (\pm 0\%)$	<input type="checkbox"/>
Equation	Retinol equivalent		$NV_VITA_RE[\mu g] = RETOL[\mu g] + 0.17 * CARTB[\mu g] + 0.08 * CARTA[\mu g] + 0.08 * ...$	<input type="checkbox"/>
Equation	Iron total		$FE[mg] = HAEM[mg] + NHAEM[mg] (\pm 5\%)$	<input type="checkbox"/>
Equation	Protein total		$PROT[g] = PROTAN[g] + PROTPL[g] (\pm 5\%)$	<input type="checkbox"/>
Equation	Fatty acids total		$FACID[g] = FASAT[g] + FAMS[g] + FAPU[g] + FATRS[g] (\pm 5\%)$	<input checked="" type="checkbox"/>
Equation	Fat total		$FAT[g] = FATSAT[g] + FATMU[g] + FATPU[g] + FATTRN[g] (\pm 5\%)$	<input checked="" type="checkbox"/>
Equation	Available carbohydrates		$CHO[g] = MNSAC[g] + DISAC[g] + PSACNC[g] (\pm 3\%)$	<input type="checkbox"/>
Equation	Sum of macronutrients		$100 = CHOT[g] + PROT[g] + FAT[g] + WATER[g] (\pm 5\%)$	<input checked="" type="checkbox"/>
Equation	Linoleic acid, omega 3		$F18:2CN6[g] \leq FAN3[g] (\pm 5\%)$	<input type="checkbox"/>
Version	5% difference check		5%	<input type="checkbox"/>
SQL	Empty value created with formula	Checks if food contains compo...	<code>SELECT * FROM tblaggrfood afJOINtblaggrfoodcomponent afc ON af.idaggrfood =...</code>	<input type="checkbox"/>

Version

Current version will be used for all checks. Compare version is necessary if you choose to run check of type Version.

current

head [1]

compare


Refresh

Select the test you want to run.

Back

Next


Close

 Data Issues Wizard

Check Selection

Only checks with issues are listed. Select a check for further inspection.

Type	Name	Description	Condition	#Issues /	#Accepted
Equation	Sum of macronutrients		$100 = \text{CHOT}[\text{g}] + \text{PROT}[\text{g}] + \text{FAT}[\text{g}] + \text{WATER}[\text{g}] (\pm 5\%)$	4	0
Equation	Fatty acids total		$\text{FACID}[\text{g}] = \text{FASAT}[\text{g}] + \text{FAMS}[\text{g}] + \text{FAPU}[\text{g}] + \text{FATRS}[\text{g}] (\pm 5\%)$	25	0
Equation	Fat total		$\text{FAT}[\text{g}] = \text{FATSAT}[\text{g}] + \text{FATMU}[\text{g}] + \text{FATPU}[\text{g}] + \text{FATTRN}[\text{g}] (\pm 5\%)$	43	0

 Refresh

Report

Open

Back

Close

FC
Data Issues Wizard

Issues List

Only issues for the selected check are listed. Opening an issue will open the corresponding aggregated food in its detail frame.

Check

Type

Equation

Name

Sum of macronutrients

Description

Constraint

100 = CHOT[g] + PROT[g] + FAT[g] + WATER[g] (±5%)

☐ Show accepted issues

Accepted	Food	Remark
<input type="checkbox"/>	Zitrone, roh / Lemon, fresh [402]	
<input type="checkbox"/>	Aprikose, getrocknet / Apricot, dried [479]	
<input type="checkbox"/>	Passionsfrucht, roh / Passion fruit, fresh [1151]	
<input type="checkbox"/>	Rosine, getrocknet / Raisins, dried (grape)/ sultanas [488]	

Refresh

Report

Save

Open

Back

Close

Exercises

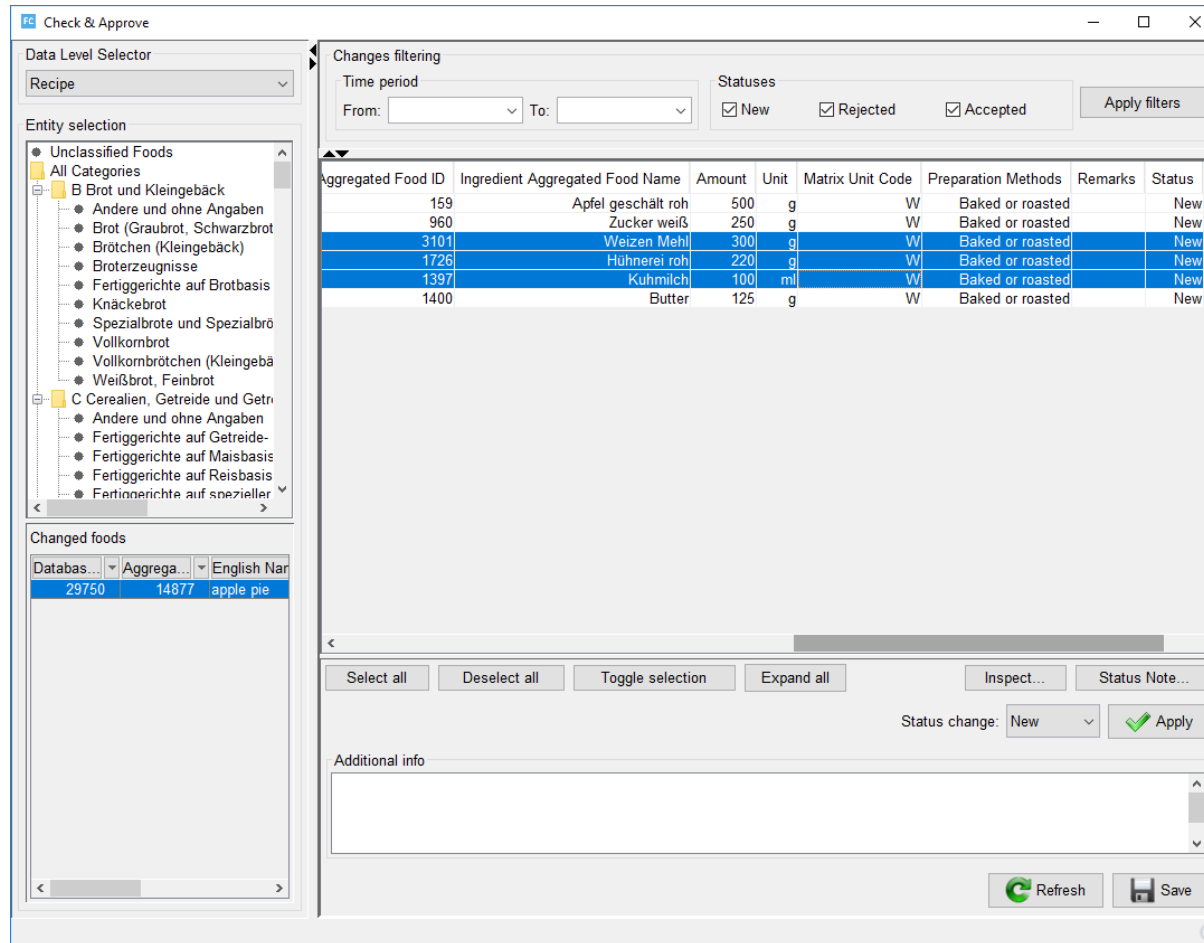


Exercises

- 4d

Check and Approve Wizard

Check and Approve Wizard



Aggregated Food ID	Ingredient	Aggregated Food Name	Amount	Unit	Matrix Unit Code	Preparation Methods	Remarks	Status
159	Apfel geschält roh		500	g	W	Baked or roasted		New
960	Zucker weiß		250	g	W	Baked or roasted		New
3101	Weizen Mehl		300	g	W	Baked or roasted		New
1726	Hühnerrei roh		220	g	W	Baked or roasted		New
1397	Kuhmilch		100	ml	W	Baked or roasted		New
1400	Butter		125	g	W	Baked or roasted		New

- To double check data after their entry or modification
 - Source level: value change
 - Aggregated level: change in aggregation definition except changing source values
 - Recipe level: change in recipe definition
- Every food and value has a status
 - New
 - Accepted
 - Rejected
- Work through wizard until there is no data with status new.

Exercises



Exercises

- 4e

Bulk Borrow

Bulk Borrow

FC FoodCASE Play v5.7.0

FC Borrowed Values Wizard

Borrowed Values

Date Crea...	Database I...	Target Foo...	Target Food	Database I...	Source Fo...	Source Food	Borrowed ...	Component	Value	Unit	Matrix Unit	Needs Rec...
Jul 23, 2018	10335	1305622078	chips naturel...	214	213	fit crisp (bio...	304131	ALC		0 g	per 100g edi...	<input checked="" type="checkbox"/>
Oct 6, 2015	10236	11078	aardappel r...	963	958	Kartoffel, ge...	300375	ALC		0 g	per 100g edi...	<input checked="" type="checkbox"/>
Jul 2, 2009	388	1305622170	Brombeere, ...	4085	1340	abdcasdg	8775	ALC		0 g	per 100g edi...	<input checked="" type="checkbox"/>
Mar 16, 2018	10328	1305622058	ValDocTest1	4162	1397	abckarl	303855	CARTA		0 mg	per 100g edi...	<input checked="" type="checkbox"/>
Sep 5, 2014	4100	1351	a21	1010	1005	Biber	299652	CARTB		0.4 µg	per 100g edi...	<input type="checkbox"/>
Apr 28, 2016	10285	200192	TestKarl6	10291	200199	ZRecipeTEST	300908	CA		20.9 mg	per 100g edi...	<input checked="" type="checkbox"/>
Aug 5, 2019	13538	1305622172	5617 aggr2	4103	1354	a3r	395073	CA		14.6 mg	per 100g edi...	<input type="checkbox"/>
Aug 5, 2019	13537	1305622171	5617 aggr	13539	1305622173	5617 lend	395065	CA		0 mg	per 100g edi...	<input checked="" type="checkbox"/>
Feb 11, 2016	4184	1418	Appel Jonag...	4191	1423	apple elstar...	300652	CHO		14.0 g	per 100g edi...	<input checked="" type="checkbox"/>
Jul 23, 2018	10335	1305622078	chips naturel...	214	213	fit crisp (bio...	304134	CHO		72 g	per 100g edi...	<input checked="" type="checkbox"/>
Sep 5, 2014	4100	1351	a21	4096	1349	Äppler-Test IN	299653	CHORL		10 mg	per 100g edi...	<input type="checkbox"/>
Aug 14, 2019	4100	1351	a21	10236	11078	aardappel r...	395085	ENERCJ		729 kJ	per 100g edi...	<input type="checkbox"/>
Oct 12, 2012	4228	1456	appel4	4186	1420	Appel Elstar...	126592	FAT		0.2 g	per 100g edi...	<input checked="" type="checkbox"/>
Sep 7, 2017	10321	1305622031	Apfel Renette	4185	1419	Appel Jonag...	303220	FAT		0.2 g	per 100g edi...	<input checked="" type="checkbox"/>
Jul 23, 2018	10335	1305622078	chips naturel...	214	213	fit crisp (bio...	304132	FIBT		10 g	per 100g edi...	<input checked="" type="checkbox"/>
Oct 6, 2015	10236	11078	aardappel r...	963	958	Kartoffel, ge...	300374	FIBT		2.1 g	per 100g edi...	<input checked="" type="checkbox"/>
Jul 23, 2018	10335	1305622078	chips naturel...	10336	1305622079	yoghurt met ...	304198	NIA		0.25 mg	per 100g edi...	<input checked="" type="checkbox"/>
Sep 18, 2017	4164	1399	aardappelen...	496	492	Flunder, roh	303506	P		190 mg	per 100g edi...	<input type="checkbox"/>
Sep 18, 2017	4164	1399	aardappelen...	496	492	Flunder, roh	303505	K		288 mg	per 100g edi...	<input type="checkbox"/>

Create Values... Add Values... Change Values... Remove Values Finish Cancel

Bulk Borrow

FC
X

Borrow To Aggregated Foods

Database ID	Food ID	Food Name	English Name	Matrix Unit
4100	1351	a21	a2	per 100g edible portion

Borrowed Values

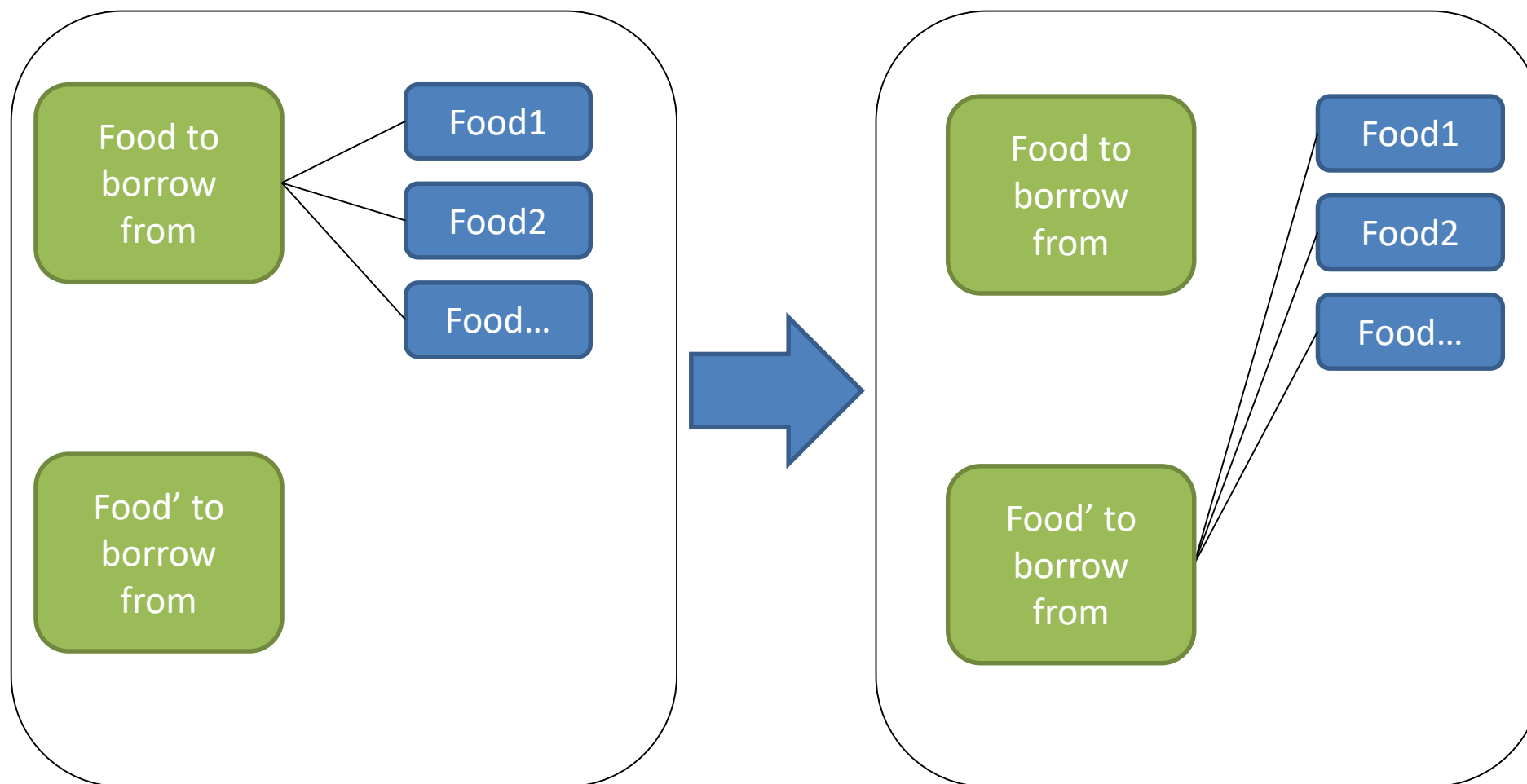
Database ID(A...	Aggregated Food ID	Source Food Name	Component code	Component name	Value	Unit	Matrix unit
4100	1351	a21	CARTB		0.4	µg	per 100g edible portion

Change Source Food...
Source Aggregated Food:

Data quality evaluation

Valid...
Finish
Cancel

Bulk Borrow



Nutrient Estimation Wizard

Nutrient Estimation Wizard

Nutrient Estimation Wizard

This wizard generates micro-nutrient values basing on the provided ingredients, their preparation methods, nutrient retention factors and the Big-Eight.

Required Information

Source Food

Weight Yield Factor

Target matrix unit

Target specific gravity

Ingredients

Ingredients

Name
Nutrient Retention Factor
Classification
Preperation Methods
Add...
Remove

Name
Nutrient Retention Factor
Classification
Preperation Methods
Add...
Remove

Name
Nutrient Retention Factor
Classification

Data quality evaluation

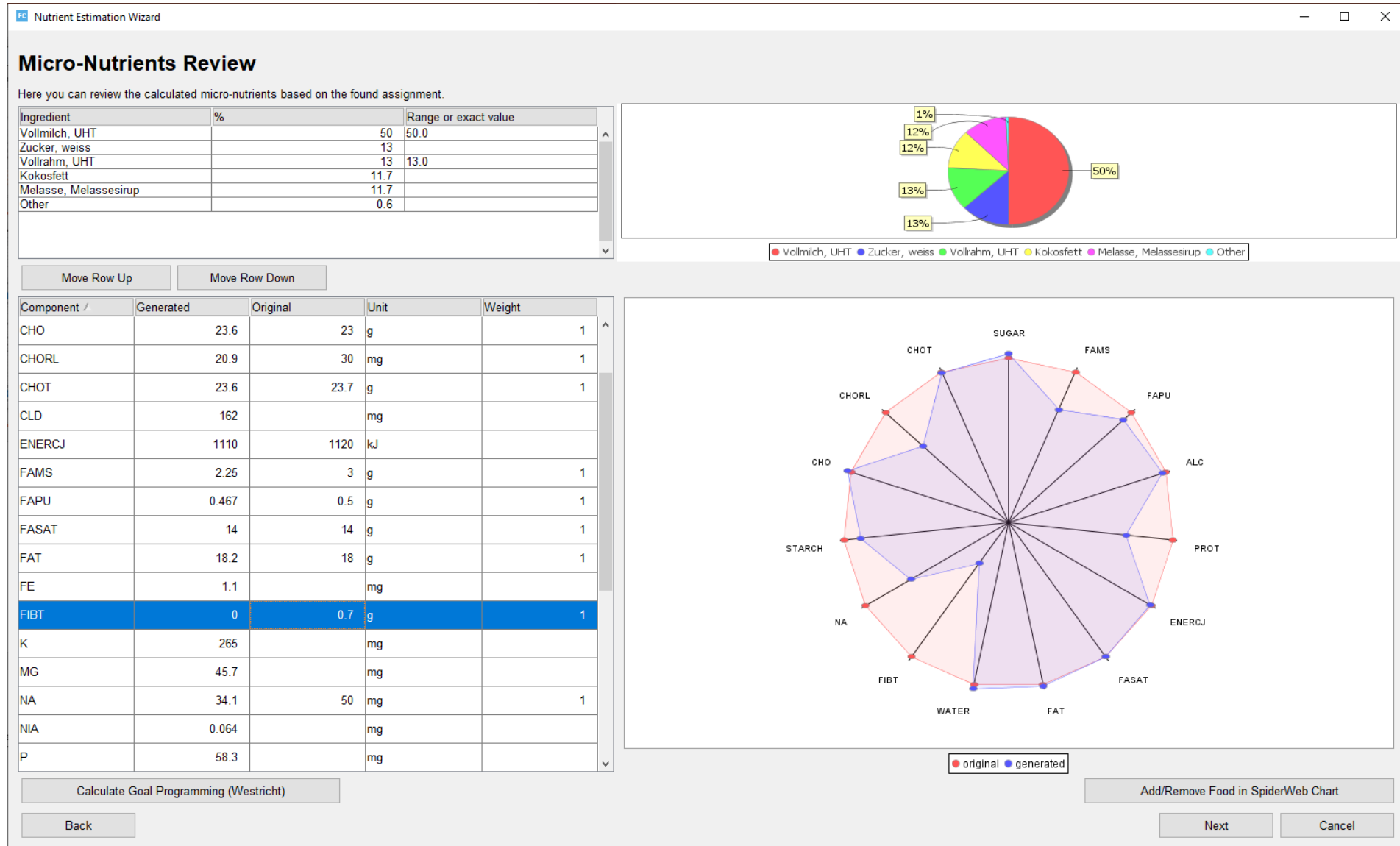
Vollmilch, UHT / Whole milk, UHT [63]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

Zucker, weiss / Sugar, white [481]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

Vollrahm, UHT / Cream, 35 % fat, UHT [66]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

Kakaopulver / Cocoa powder [624]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

Nutrient Estimation Wizard



Nutrient Estimation Wizard

Nutrient Estimation Wizard

Food Data Review

Please provide mandatory identification data and review food data before saving.

Food Information

Food ID
1305622179

Food Name
Gebäck mit Fruchtfüllung und Haselnüssen (Vogelnestli) NEW

English Name
Cookie with fruit filling and hazelnuts NEW

Weight Yield Factor
1

Target matrix unit
W (per 100g edible portion)

Target specific gravity

Ingredients

Name
iehl (Weissmehl) Type 405 / Weizenmehl (Weissmehl) Type 405 [826]

Nutrient Retention Factor

Classification

Preparation Methods
Add...
Remove

Name
R: Himbeere Konfitüre / R: Himbeere Konfitüre [1045]

Nutrient Retention Factor

Classification

Preparation Methods
Add...
Remove

Name
Haselnuss_X / Haselnuss_X [450]

Nutrient Retention Factor

Classification

Components

Component /	Generated	Original	Unit
ALC	0		g
CA	31.957	32	mg
CHO	26.618	26.8	g
CHOT	28.693	28.8	g
CLD	229.827	230	mg
ENERCJ	1177.707	1180	kJ
FAMS	9.218	9.23	g
FAPU	4.58	4.58	g
FASAT	1.62	1.62	g
FAT	16.433	16.4	g
FE	0.973	0.975	mg
FOL	20.398	20	µg
K	137.272	137	mg
MG	28.52	28.6	mg
NA	156.551	157	mg
NIA	0.331	0.33	mg
P	66.21	66.3	mg
PANTAC	0.31	0.31	mg
RIBF	0.089	0.089	mg
SUGAR	8.813	8.81	g
THIA	0.079	0.079	mg

Data quality evaluation

Weizenmehl (Weissmehl) Type 405 / Weizenmehl (Weissmehl) Type 405 [826]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

R: Himbeere Konfitüre / R: Himbeere Konfitüre [1045]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

Haselnuss_X / Haselnuss_X [450]: no nutrient retention factor classification is assigned. (default nutrient retention factor = 1)

Revalidate
Back
Save

Exercises



Exercises

- 4f
- Pick food:
 - Source Food ID: 159,
 - Name: Ice cream, dairy, popsickle, vanilla coated with chocolate (Migros) seal
 - Please don't store it because other are also using this example

Thank you for participation and
attention.

Administrate RODQ Schemas

The super user/administration can:

- define her/his own requirements

Every user can:

- define her/his own RODQ Schemas