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Managing and Presenting Fact Panel Data

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Overview

Applications: GSM

Focus Area: Trade, Nutrient Profile, Custom Product Fact Sheet

As part of 6.0 we further our commitment to provide customers the ability to create, modify, and enhance elements related to Fact Panel generation. The major move in 6.0 is the following items are removed from the system:

- The Product Fact Sheet link is removed from the Supporting Documents tab of trade specifications and menu item specifications.
- The Final Value column is removed from the Nutrition Panel tab of a nutrient profile.
- The link on the Per Serving column that kicks off the rounding rule selection process is removed. The Per Serving column remains, but it will not be linked to the rounding rule. Per Serving values will now calculate when the specification is saved or if the specification's Calculate button is selected.

In this document we look at how fact panel data is now managed and presented in 6.0. We will review this topic in the following order:

- Nutrition Data and Storage.
- Creating Fact Panel Data Using Custom Sections.
- Presenting Fact Panel Data via Custom Sections.
- Configuring and Printing Custom Product Fact Sheets.

The Basics

1. Nutrient Data and Storage: We will use a cheese pizza hierarchy as an example throughout this discussion. The hierarchy appears as follows:

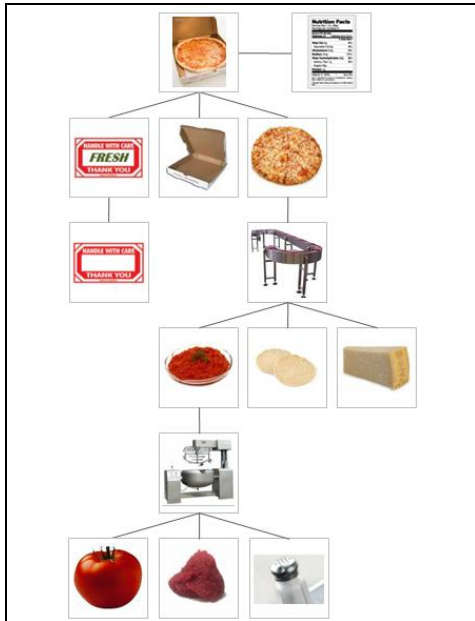


Figure 1. Visual Hierarchy Representation

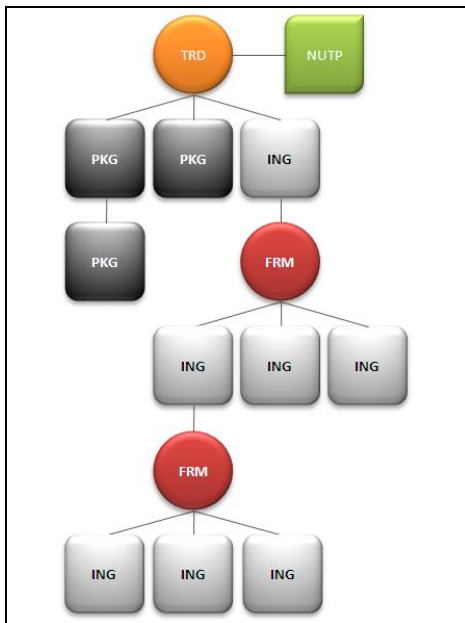


Figure 2. Visual Object Representation

Important facts about the hierarchy:

- a) While nutrition data exists throughout the hierarchy we will focus our attention on the relationship between the nutrient Profile and the trade specification.
- b) The nutrient profile stores the following, see the figure below as an example:
 - i. Serving Size
 - ii. Nutrition Per 100g
 - iii. Per Serving (Derived nutrition, non-rounded)
- c) 100g nutrition data appears on the nutrient profile through the following methods:
 - i. Import data from the appropriate ingredient specification. This data may represent theoretical data.
 - ii. Import data from a NSM analysis or composition. The source is usually from a lab.
 - iii. Import data from the Food Composition Library, representing industry standard data provided by a regulatory body.
 - iv. Manual entry.
- d) The trade specification does not store nutrition data. Instead it points to a nutrient profile containing the proper information. A trade specification can be associated with multiple nutrient profiles and any one can be selected for printing.
- e) Some of the techniques described in this document can be used to present fact panel data in other areas of the application such as ingredient specifications. However you may need to make adjustments based on the data available for a given object, i.e. 100g data is presented on an ingredient's Nutrient Composition however Serving Size and Nutrition Per Serving is not available. Therefore you will need to add additional custom data to support these areas if you wish to print fact panels from an ingredient specification.

(nutp) 5091240-001 - Fresh Cheese Pizza (Draft)				
Summary Nutrition Panel Label Composition Ext Data Related Specs Supporting Documents References Approval/Aud				
Nutrient Profile				
Nutrient	Per 100g	Source	Per Serving	Comments
Calories	356.82727 kcal	Ingredient Specification (5091238-001)	404.63532 kcal	
Energy kJ	1493.69091 kJ	Ingredient Specification (5091238-001)	1693.81700 kJ	
Protein	30.01682 g	Ingredient Specification (5091238-001)	34.03850 g	
Carbohydrates	10.70327 g	Ingredient Specification (5091238-001)	12.13731 g	
Dietary Fiber	0.53882 g	Ingredient Specification (5091238-001)	0.61101 g	
Total Sugar	0.80521 g	Ingredient Specification (5091238-001)	0.91309 g	
Total Fat	21.22900 g	Ingredient Specification (5091238-001)	24.07328 g	
Saturated Fat	13.25275 g	Ingredient Specification (5091238-001)	15.02836 g	
Monounsaturated Fat	6.25457 g	Ingredient Specification (5091238-001)	7.09257 g	
Polyunsaturated Fat	0.57658 g	Ingredient Specification (5091238-001)	0.65383 g	
Trans Fatty Acid	0.12455 g	Ingredient Specification (5091238-001)	0.14123 g	
Cholesterol	54.40000 mg	Ingredient Specification (5091238-001)	61.68856 mg	
Ash	5.29336 g	Ingredient Specification (5091238-001)	6.00257 g	
Vitamin A - Total	69.52385 IU	Ingredient Specification (5091238-001)	78.83871 IU	
Thiamin - B1	0.11475 mg	Ingredient Specification (5091238-001)	0.13012 mg	
Riboflavin - B2	0.31774 mg	Ingredient Specification (5091238-001)	0.36031 mg	
Niacin - B3	1.04830 mg	Ingredient Specification (5091238-001)	1.18875 mg	
Pyridoxine - B6	0.10007 mg	Ingredient Specification (5091238-001)	0.11348 mg	
Cobalamin - B12	0.96200 µg	Ingredient Specification (5091238-001)	1.09089 µg	
Vitamin C	1.92727 mg	Ingredient Specification (5091238-001)	2.18549 mg	
Vitamin D	22.40000 IU	Ingredient Specification (5091238-001)	25.40117 IU	
Panthenic	0.42713 mg	Ingredient Specification (5091238-001)	0.48435 mg	
Calcium	973.76364 mg	Ingredient Specification (5091238-001)	1104.22939 mg	
Iron	1.35709 mg	Ingredient Specification (5091238-001)	1.53892 mg	
Magnesium	42.13636 mg	Ingredient Specification (5091238-001)	47.78183 mg	
Phosphorus	573.49091 mg	Ingredient Specification (5091238-001)	650.32775 mg	
Potassium	138.47273 mg	Ingredient Specification (5091238-001)	157.02543 mg	
Sodium	1729.07273 mg	Ingredient Specification (5091238-001)	1960.73549 mg	
Zinc	2.25836 mg	Ingredient Specification (5091238-001)	2.67434 mg	

Figure 3. Nutrient Profile\Nutrition Panel Tab

2. Creating Fact Panel Data Using Custom Sections: In this section we will perform a deep dive on the configuration of the extended attributes and the custom section needed to create the panel. In order to better understand how to build the data let's look at the custom section in its end state, presented on a nutrient profile after calculations have occurred.

a) Data Presented In a Custom Section:

- i) Columns: Since this is a custom section you can choose to define additional columns as needed. The following are the columns that we find are often requested:
 - 1) Per Serving: Merely a restatement of the Per Serving found on the NUTP/Nutrition Panel Tab. This is presented for the user's convenience.
 - 2) Rounded: This column calculates the proper value using a regulatory agencies specific rounding rules.
 - 3) Overrides: We have found that some customers have some exceptions that they must account for via overrides. Therefore this column allows a user to override the value.
 - 4) Final Per Serving: This is the value that is used for labeling. It will represent the rounded value unless an override exists.
 - 5) %DV (Percent Daily Value): This column calculates the proper value using regulatory agencies rules related to daily consumption recommendations.

- ii) Rows: These represent a sub-set of the data found on the NUTP/Nutrition Panel tab. Regulatory agencies usually label a subset of the nutrients found in the application.
- b) Creating the Extended Attributes: A majority of the attributes represent calculated extended attributes. To give you a better understanding of the exact configuration we present a series of screen shots below for the Saturated Fat row. Each row is very similar except for the specific j-script used to perform calculations. Included is a spread sheet called "AttributeExamples.xls" containing the j-script used to calculate each cell.

A few notes:

- In the end we will have an extended attribute for almost each row/column combination. The only reason I state "almost" is that regulatory agencies do not call for %DV on all attributes.
- You will want to mark each extended attribute as "Distinct" as this will make it easier to build custom reports if/when needed in the future. This will also make it easier for users to search for nutrition data in the system. They will be able to reference the attribute by its unique name versus its location in a custom section.
- Take time to think through the naming convention for your extended attributes. If your organization uses multiple regulatory standards then you may want to add the regulatory body's name to the beginning or end of each attribute name, "CFIA-Saturated Fat Per Serving", "USDA-Saturated Fat Per Serving"...

In our Saturated Fat example we will end up with the following attributes:

- iii) FP Saturated Fat Per Serving
- iv) FP Saturated Fat Rounded
- v) FP Saturated Fat Override
- vi) FP Saturated Fat Final
- vii) FP Saturated Fat DV

FP Saturated Fat Per Serving

Summary

Attribute Configuration

Attribute Name: FP Saturated Fat Per Serving

Attribute ID: FPSaturatedFatPerServing

Distinct: ☒

Available in: Nutrient Profile

Class: Custom Sections

Tags: Do Not Publish To Supplier

Group(s): Fact Panel

Status: Active

Security Classification: Calculated Numeric

Type: Calculated Numeric

UOM Category: Mass

Display UOM: g

Decimal Precision: ☒ As Entered ☐ Specified Precision: 1

Behaviors: ☐ Allow Nulls ☐ Show Error Details

Calculation Script: return GetNutrientValuePerServing("FASAT", 0, 0);

Calculate

Calculation Result:

Figure 4. FP Saturated Fat Per Serving

J-script performed in the “Calculation Script” field:

```
return GetNutrientValuePerServing("FASAT", 0, 0);
```

FP Saturated Fat Rounded

Summary

Attribute Configuration

Attribute Name: FP Saturated Fat Rounded

Attribute ID: FPSaturatedFatRounded

Distinct: ☒

Available in: Nutrient Profile

Class: Custom Sections

Tags: Do Not Publish To Supplier

Group(s): Fact Panel

Status: Active

Security Classification: Calculated Numeric

Type: Calculated Numeric

UOM Category: Mass

Display UOM: g

Decimal Precision: ☒ As Entered ☐ Specified Precision: 1

Behaviors: ☐ Allow Nulls ☐ Show Error Details

Calculation Script: var fatPerServing @ GetNutrientValuePerServing("FASAT", 0, 0);
if(fatPerServing < 0.5) {
 return 0;
}
else if (fatPerServing < 5.0) {
 var remainder @ fatPerServing % 1;
 if(remainder < .25) {
 return fatPerServing - remainder;
 }
 else if (remainder < .75) {
 return fatPerServing - remainder + 0.5;
 }
}

Calculate

Calculation Result:

Figure 5. FP Saturated Fat Rounded

J-script performed in the “Calculation Script” field:

```
var fatPerServing @ GetNutrientValuePerServing("FASAT", 0, 0);  
if(fatPerServing < 0.5) {return 0;}  
else if (fatPerServing < 5.0)  
{var remainder @ fatPerServing % 1;  
if(remainder < .25) {return fatPerServing - remainder;}  
else if (remainder < .75) {return fatPerServing - remainder + 0.5;}}
```

```

else {fatPerServing - remainder + 1.0;}}
else {return Math.round(fatPerServing);}

```

FP Saturated Fat Override

Summary

Attribute Configuration

Attribute Name: FP Saturated Fat Override

Attribute ID: FPSaturatedFatOverride

Distinct: ☒

Available in: Nutrient Profile

Class: Custom Sections

Tags: Do Not Publish To Supplier

Group(s): Fact Panel

Status: Active

Security Classification:

Type: Numeric

UOM Category: Mass

Available UOMs: g

Default UOM: g

Decimal Precision: ☒ As Entered ☐ Specified Precision

Figure 6. FP Saturated Fat Override

FP Saturated Fat Final

Summary

Attribute Configuration

Attribute Name: FP Saturated Fat Final

Attribute ID: FPSaturatedFatFinal

Distinct: ☒

Available in: Nutrient Profile

Class: Custom Sections

Tags: Do Not Publish To Supplier

Group(s): Fact Panel

Status: Active

Security Classification:

Type: Calculated Numeric

UOM Category: Mass

Display UOM: g

Decimal Precision: ☒ As Entered ☐ Specified Precision

Behaviors: ☒ Allow Nulls ☒ Show Error Details

Calculation Script:

```

TurnWarningsOff();
var override @ GetNumericExtendedAttributeValue('FPSaturatedFatOverride', 'GR', -1, -1);

TurnWarningsOn();
var roundedSatFatPerServing @ GetNumericExtendedAttributeValue('FPSaturatedFatRounded', 'GR', 0, 0);

if(override > -1) {
  return override;
}

```

Calculate **Calculation Results:**

Figure 7. FP Saturated Fat Final

J-script performed in the “Calculation Script” field:

```

TurnWarningsOff();
var override @ GetNumericExtendedAttributeValue('FPSaturatedFatOverride', 'GR', -1, -1);

TurnWarningsOn();
var roundedSatFatPerServing @
GetNumericExtendedAttributeValue('FPSaturatedFatRounded', 'GR', 0, 0);

```

```
if(override > -1) {return override;}
else {return roundedSatFatPerServing;}
```

FP Saturated Fat DV

Summary

Attribute Configuration

Attribute Name: FP Saturated Fat Percent DV

Attribute ID: FPSaturatedFatPercentDV

Distinct: ☒

Available in: Nutrient Profile

Class: Custom Sections

Tags: Do Not Publish To Supplier

Group(s): Fact Panel

Status: Active

Security Classification:

Type: Calculated Numeric

UOM Category:

Display UOM:

Decimal Precision: ☒ As Entered ☐ Specified Precision

Behaviors: ☒ Allow Nulls ☐ Show Error Details

Calculation Script:

```
var finalSatFatPerServing @ GetNumericExtendedAttributeValue('FPSaturatedFatFinal', 'GR', 0, 0);
return Math.round(finalSatFatPerServing/20*100);
```

Calculate **Calculation Result:**

Figure 8. FP Saturated Fat DV

J-script performed in the “Calculation Script” field:

```
var finalSatFatPerServing @ GetNumericExtendedAttributeValue('FPSaturatedFatFinal', 'GR', 0, 0);
return Math.round(finalSatFatPerServing/20*100)
```

Note: See the *Agile Product Lifecycle Management for Process Extended Attribute Calculation Guide* for more information on calculated attributes, and Appendix B of the *Agile Product Lifecycle Management for Process Administrator User Guide* for a listing of all variables and InFoods codes needed to pull nutrient and serving size values from specifications.

- c) **Creating the Custom Section:** If you are familiar with creating custom sections this step will seem common. You will want to make sure to mark the columns and rows to default for the most common panel elements. Also you will want to consider the print widths for each column as we believe the standard custom section print will be considered quite valuable.
 - i) **Create the custom section.** Take note of the section number and make sure to set the Available In to **Nutrient Profile**.

ii) Add Columns:

Custom Section

Summary

Section Number: 1000406
 Section Name: Fact Panel - USDA
 ID: 1000406
 Hide Header: ☐
 Security Classification:
 Status: New
 Available In: Nutrient Profile
 Tags:

	+	Per Serving	Rounded	Overrides	Final Per Serving	%DV
	---	---	---	---	---	---

☐ New
 ☒ Default
 ☐ Active
 ☐ Inactive and Archived

☒ Include all "New" items

iii) Add Rows:

Custom Section

Summary

Section Number: 1000406
 Section Name: Fact Panel - USDA
 ID: 1000406
 Hide Header: ☐
 Security Classification:
 Status: New
 Available In: Nutrient Profile
 Tags:

	+	Per Serving	Rounded	Overrides	Final Per Serving	%DV
Calories	---	---	---	---	---	---
Calories From Fat	---	---	---	---	---	---
Fat	---	---	---	---	---	---
Saturated Fat	---	---	---	---	---	---
Trans Fat	---	---	---	---	---	---
Cholesterol	---	---	---	---	---	---
Sodium	---	---	---	---	---	---
Total Carbohydrate	---	---	---	---	---	---
Dietary Fiber	---	---	---	---	---	---
Sugars	---	---	---	---	---	---
Protein	---	---	---	---	---	---
Vitamin A	---	---	---	---	---	---
Vitamin C	---	---	---	---	---	---
Calcium	---	---	---	---	---	---
Iron	---	---	---	---	---	---

☐ New
 ☒ Default
 ☐ Active
 ☐ Inactive and Archived

☒ Include all "New" items

iv) Finally add the Extended Attributes that you configured in 2b.

Custom Section

Summary

Section Number: 1000406
 Section Name: Fact Panel - USDA
 ID: 1000406
 Hide Header: ☐
 Security Classification:
 Status: New
 Available In: Nutrient Profile
 Tags:

	Per Serving	Rounded	Overrides	Final Per Serving	%DV
Calories	FP Calories Per Serving	FP Calories Rounded	FP Calories Override	FP Calories Final	---
Calories From Fat	FP Calories From Fat Per Serving	FP Calories From Fat Rounded	FP Calories From Fat Override	FP Calories From Fat Final	---
Fat	FP Fat Per Serving	FP Fat Rounded	FP Fat Override	FP Fat Final	FP Fat Percent DV
Saturated Fat	FP Saturated Fat Per Serving	FP Saturated Fat Rounded	FP Saturated Fat Override	FP Saturated Fat Final	FP Saturated Fat Percent DV
Trans Fat	FP Trans Fat Per Serving	FP Trans Fat Rounded	FP Trans Fat Override	FP Trans Fat Final	---
Cholesterol	FP Cholesterol Per Serving	FP Cholesterol Rounded	FP Cholesterol Override	FP Cholesterol Final	FP Cholesterol Percent DV
Sodium	FP Sodium Per Serving	FP Sodium Rounded	FP Sodium Override	FP Sodium Final	FP Sodium Percent DV
Total Carbohydrate	FP Carb Per Serving	FP Carb Rounded	FP Carb Override	FP Carb Final	FP Carb Percent DV
Dietary Fiber	FP Fiber Per Serving	FP Fiber Rounded	FP Fiber Override	FP Fiber Final	FP Fiber Percent DV
Sugars	FP Sugar Per Serving	FP Sugar Rounded	FP Sugar Override	FP Sugar Final	---
Protein	FP Protein Per Serving	FP Protein Rounded	FP Protein Override	FP Protein Final	---
Vitamin A	FP Vitamin A Per Serving	FP Vitamin A Rounded	FP Vitamin A Override	FP Vitamin A Final	FP Vitamin A Percent DV
Vitamin C	FP Vitamin C Per Serving	FP Vitamin C Rounded	FP Vitamin C Override	FP Vitamin C Final	FP Vitamin C Percent DV
Calcium	FP Calcium Per Serving	FP Calcium Rounded	FP Calcium Override	FP Calcium Final	FP Calcium Percent DV
Iron	FP Iron Per Serving	FP Iron Rounded	FP Iron Override	FP Iron Final	FP Iron Percent DV

Add New Row Add New Column Reorder Rows Reorder Columns

☐ New ☐ Default ☐ Active ☐ Inactive and Archived

Preview ☒ Include all "New" items

v) Once the section is marked as active and it is saved it should appear as follows. At this point the section is ready to use on the nutrient profile.

Custom Section

Summary

Section Number: 1000406
 Section Name: Fact Panel - USDA
 ID: 1000406
 Hide Header: ☐
 Security Classification:
 Status: Active
 Available In: Nutrient Profile
 Tags:

	Per Serving	Rounded	Overrides	Final Per Serving	%DV
Calories	FP Calories Per Serving	FP Calories Rounded	FP Calories Override	FP Calories Final	---
Calories From Fat	FP Calories From Fat Per Serving	FP Calories From Fat Rounded	FP Calories From Fat Override	FP Calories From Fat Final	---
Fat	FP Fat Per Serving	FP Fat Rounded	FP Fat Override	FP Fat Final	FP Fat Percent DV
Saturated Fat	FP Saturated Fat Per Serving	FP Saturated Fat Rounded	FP Saturated Fat Override	FP Saturated Fat Final	FP Saturated Fat Percent DV
Trans Fat	FP Trans Fat Per Serving	FP Trans Fat Rounded	FP Trans Fat Override	FP Trans Fat Final	---
Cholesterol	FP Cholesterol Per Serving	FP Cholesterol Rounded	FP Cholesterol Override	FP Cholesterol Final	FP Cholesterol Percent DV
Sodium	FP Sodium Per Serving	FP Sodium Rounded	FP Sodium Override	FP Sodium Final	FP Sodium Percent DV
Total Carbohydrate	FP Carb Per Serving	FP Carb Rounded	FP Carb Override	FP Carb Final	FP Carb Percent DV
Dietary Fiber	FP Fiber Per Serving	FP Fiber Rounded	FP Fiber Override	FP Fiber Final	FP Fiber Percent DV
Sugars	FP Sugar Per Serving	FP Sugar Rounded	FP Sugar Override	FP Sugar Final	---
Protein	FP Protein Per Serving	FP Protein Rounded	FP Protein Override	FP Protein Final	---
Vitamin A	FP Vitamin A Per Serving	FP Vitamin A Rounded	FP Vitamin A Override	FP Vitamin A Final	FP Vitamin A Percent DV
Vitamin C	FP Vitamin C Per Serving	FP Vitamin C Rounded	FP Vitamin C Override	FP Vitamin C Final	FP Vitamin C Percent DV
Calcium	FP Calcium Per Serving	FP Calcium Rounded	FP Calcium Override	FP Calcium Final	FP Calcium Percent DV
Iron	FP Iron Per Serving	FP Iron Rounded	FP Iron Override	FP Iron Final	FP Iron Percent DV

☐ New ☐ Default ☐ Active ☐ Inactive and Archived

3. Presenting Fact Panel Data Via Custom Sections: The beauty of this solution is that panels become very natural to interact with compared to previous versions. If your implementation calls for panels representing five different regulatory bodies then you merely repeat the steps above for each regulatory body. In the following examples the preparation consists of populating the nutrient profile with data and adding the custom section.

- a) Add the custom section to the nutrient profile and click Calculate.

Note: Warnings will appear by default if data is not populated. The appearance of this warning message can be controlled via j-script.

- b) When printing from the trade specification:

- i. Print dialog window: Make sure to select the nutrient profile.

The screenshot shows a 'Print' dialog window with the following sections:


- Documentation Format:**
 - Business Unit: CPT North America
 - Paper Size: US - letter
 - Include Cross Reference: --None
 - Document Control: ☐ Controlled Copy ☒ Uncontrolled Copy
 - Print Template: Default
 - Include Activity Summary: ☐
 - Style/Layout: INTERNAL SPECIFICATION
 - Include Cover Sheet: ☐
- Packaging Hierarchy:**
 - Title Specification: Fresh Cheese Pizza (5091239-001)
- Related Trade Items:**

	Include Summary	Append Specification
CU Fresh Cheese Pizza Consumer Unit - (1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Packaging Material Specs:**

Std Corrugated Pizza Box (5091243-001)	--	<input type="checkbox"/>
Pizza Box Pattern - Pizza Box.jpg	--	<input type="checkbox"/>
Fresh Pizza Label (5091242-001)	--	<input type="checkbox"/>
Fresh Pizza Label - Fresh Pizza.jpg	--	<input type="checkbox"/>
- Nutrient Profile:** (Highlighted with a red box)

Fresh Cheese Pizza (5091240-001)	--	<input checked="" type="checkbox"/>
----------------------------------	----	-------------------------------------

- ii. The fact panel custom section as presented when printing the nutrient profile from the trade specification.

Fresh Cheese Pizza (5091240-001)					
	Nutrient Profile		Status:	Draft	
			Effective:	25-Aug-2009	
			Prepared By:	Burnier, Randal	
Fact Panel - USDA					
	Per Serving	Rounded	Overrides	Final Per Serving	%DV
Calories	404.63532	400		400	
Calories From Fat	216.65952	220		220	
Fat	24.07328g	24g	g	24g	37
Saturated Fat	15.02836g	15g	g	15g	75
Trans Fat	0.14123g	0g	g	0g	
Cholesterol	61.68856mg	62mg	mg	62mg	21
Sodium	1960.73549mg	1960mg	mg	1960mg	82
Total Carbohydrate	12.13731g	12g	g	12g	4
Dietary Fiber	0.61101g	1g	g	1g	4
Sugars	0.91309g	1g	g	1g	
Protein	34.0385g	34g	g	34g	
Vitamin A	0IU	0IU	IU	0	0
Vitamin C	2.18549mg	2.18549mg	mg	2.18549mg	4
Calcium	1104.22939mg	1104.22939mg	mg	1104.22939mg	110
Iron	1.53892mg	1.53892mg	mg	1.53892mg	10

It is common for this information to then be given to a resource developing the artwork for the packaging. During the artwork development data will be placed in the proper panel format. Usually this resource has a library of panels that are commonly used for the company's products.

Please note that panel formats must meet strict guidelines as defined by the various regulatory bodies. These panel formats are not provided as part of the PLM for Process application.



Fact Panels
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Hardware and Software, Engineered to Work Together