



Hypothetical Meals

Bulk Format Proposal (v5)

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Format

The format of the file will be **CSV** (Comma Separated Value). This will allow users to easily create files from spreadsheet applications such as Excel and Google Sheets by “export as .csv file” functionality. This will provide an enjoyable experience for the user, as it requires low difficulty and has popular software programs that support this format. It will also allow existing spreadsheets (as stated in the Evolution 1 Introduction) to be used for import, as the format is likely easy to replicate from existing spreadsheets.

Inputs

Headers (correspond to fields below)

- INGREDIENT
- PACKAGE
- AMOUNT (LBS)
- PRICE PER PACKAGE
- TEMPERATURE
- VENDOR FREIGHT CODE

Fields

- *Ingredient* - unique name of the **new** ingredient being added.
- *Package* - choice of “sack”, “pail”, “drum”, “supersack”, “truckload”, or “railcar”.
- *Amount (lbs)* - integer number of pounds of the ingredient
- *Price Per Package* - positive, decimal value - specified up to hundredths place.
- *Temperature* - choice of “**frozen**”, “**refrigerated**” or “**room temperature**”.
- *Vendor Freight Code* - alphanumeric freight code for an existing Vendor.

Requirements and other specifications

1. Imported **Vendors** must already be **pre-existing** in the database;
2. Imported Ingredients do **NOT** have to be pre-existing, but can also already be in the database e.g. adding more stock of an ingredient.
3. The import action shall only occur if the entire input is **free of name conflicts** or otherwise **problematic issues**; if such issues arise, the precise nature of the error should be presented to the administrator in enough detail that it can be corrected.
 - a. Problematic issues include vendor doesn’t exist, capacity would be exceeded by bulk import, etc.
4. All fields are **case insensitive**
5. Character encoding is in **UTF-8**.
6. Price per package must be a positive value, specified up to the hundredths place.
7. If commas are within any field, the field will be **double quoted** by the CSV format to allow for proper parsing.

- 8. A double-quote appearing inside a field must be escaped by preceding it with another double quote. (e.g. "aaa","b""bb","ccc")
- 9. The file could take either CRLF or LF as line breaks, but the choice of line break through a particular file should be consistent. Any occurrence of CRLF or LF MUST represent a line break. Use of CR and LF outside of line break sequences is forbidden.

Examples

Excel Representation

INGREDIENT	PACKAGE	AMOUNT (LBS)	PRICE PER PACKAGE	VENDOR FREIGHT CODE	TEMPERATURE
Ingredient1	Package	Amount (lbs)	Price Per Package	Vendor Freight Code	Temperature
Ingredient1	Package	Amount (lbs)	Price Per Package	Vendor2 Freight Code	Temperature
Ingredient2	Package	Amount (lbs)	Price Per Package	Vendor Freight Code	Temperature
Ingredient3	Package	Amount (lbs)	Price Per Package	Vendor2 Freight Code	Temperature
Ingredient4	Package	Amount (lbs)	Price Per Package	Vendor Freight Code	Temperature
Ingredient5	Package	Amount (lbs)	Price Per Package	Vendor3 Freight Code	Temperature
Ex.					
INGREDIENT	PACKAGE	AMOUNT (LBS)	PRICE PER PACKAGE	VENDOR FREIGHT CODE	TEMPERATURE
Carrots, pail	pail	89	20.15	DF2CK21	room temperature
Carrots, pail	pail	45	16.89	JK878DC	room temperature
Carrots - railcar	railcar	24690	4000	DF2CK21	room temperature
Apples - supersack	supersack	60	69.32	JK878DC	frozen
Potatoes - drum	drum	129	32.1	DF2CK21	refrigerated
Potatoes, sack	sack	55	6.01	KDC322D	refrigerated

CSV Output from Excel

Format

INGREDIENT, PACKAGE, AMOUNT (LBS), PRICE PER PACKAGE, VENDOR FREIGHT CODE, TEMPERATURE

Ingredient1, Package, Amount (lbs), Price Per Package, Vendor Freight Code, Temperature

Ingredient1, Package, Amount (lbs), Price Per Package, Vendor2 Freight Code, Temperature

Ingredient2, Package, Amount (lbs), Price Per Package, Vendor Freight Code, Temperature

Ingredient3, Package, Amount (lbs), Price Per Package, Vendor2 Freight Code, Temperature

Ingredient4, Package, Amount (lbs), Price Per Package, Vendor Freight Code, Temperature

Ingredient5, Package, Amount (lbs), Price Per Package, Vendor3 Freight Code, Temperature

Example

```
INGREDIENT,PACKAGE,AMOUNT (LBS),PRICE PER PACKAGE,VENDOR FREIGHT  
CODE,TEMPERATURE  
"Carrots, pail",pail,89,20.15,DF2CK21,room temperature  
"Carrots, pail",pail,45,16.89,JK878DC,room temperature  
Carrots - railcar,railcar,24690,4000,DF2CK21,room temperature  
Apples - supersack,supersack,60,69.32,JK878DC,frozen  
Potatoes - drum,drum,129,32.1,DF2CK21,refrigerated  
"Potatoes, sack",sack,55,6.01,KDC322D,refrigerated
```

Acknowledgement

This file is created based on the effort of the format committee, feedback from Professor Bletsch, and csv standards proposed [here](#)

Addressing customer feedback

Third Iteration

14 - You don't mean "smart quotes". you just mean "the field is quoted". Smart quotes are the curly ones that Word puts in for you -- you don't want those.

We changed the wording to “the field will be quoted”。

15 - What if a field contains a quote and a comma?

The format specifics that double quote within a field should be escaped by another double quote

16 - Your example file again doesn't conform to your own spec. It has "refrigerator"/"freezer" but the spec says "refrigerated"/"frozen"

We changed the spec and now it says "refrigerated"/"frozen".

17 - The "customer feedback" response talks about CRLF vs LF, but the spec itself still doesn't specify. Also, that discussion implies that Excel can do LF-based export, but my Excel is old and doesn't have that option. Would it be possible to allow inputs using either standard?

We addressed the issue in the spec itself and allowed either one to be used, though a single file should be consistent about its choice regarding line breaks.

Second Iteration

7 - Ingredient names should be unique, but the example shows multiple "Carrots" entries, including some with differing packages.

This issue has been fixed. Same ingredient with different packages now must be different names. Ingredient names are unique, but when we are importing ingredients with the same name from multiple vendors, the name can show up multiple times on the bulk import file if there are multiple vendors sending in the bulk.

8 - It appears multiple rows for a given ingredient are how we indicate multiple vendors -- is this right? In that case, why can I specify stock amounts per vendor? Are these summed together?

Yes, for the same explanation above. You can specify stock from different vendors so you know how much you ordered from the vendor and they are summed together when viewing them in the inventory. E.g. I order 50lbs of carrots-pail from Vendor A and 20lbs of carrots-pail from Vendor B. In the inventory, it will display that I have 70lbs of carrots-pail. Within the ingredient detail page, I can view that 50lbs of the pails are from Vendor A and 20lbs of those are from Vendor B.

9 - For stock amount, how would I record that I have half a pail? In other words, stock is measured in pounds, but that cannot be expressed here; it's as if you assume the import represents a new order?

We have changed the format that you can now specify an exact amount of pounds to import.

10- How do I specify fields with commas in them, such as "Carrots, frozen"?

When a field contains commas, the csv file automatically generates smart quotes as we can see from the above new example. The use of headers also assists to ensure there is proper parsing. As the customer, we do not want you to fear putting commas into the CSV. As developers, our parsing will handle that for you.

11- What is the line terminator (CRLF, LF, or both)? As an example of this mattering, I happen to know Sakai can be made to crash if fed a CSV with a mix of CRLF and LF line terminators.

The line terminator is LF. When exporting from Google Sheets, the line terminator is LF. When exporting from Excel (you save the file as a "CSV UTF-8 (Comma delimited) .csv"), it also uses the LF line terminator. We hope that the customer would be using one of these programs

to create the CSV for bulk import rather than typing it out by hand and specifying CR or CRLF as the line terminators.

12 - You said "no unicode" -- a better way is to say "ASCII only". However, that's fairly archaic at this point. Perhaps "UTF-8 only"? But then you have to deal with escape sequences and invisible characters. There's not a great answer here...character encoding simply always sucks. But you do need to specify something. I won't be a jerk and abuse it.

We now specify character encoding as UTF-8.

13 - Your example doesn't include the header.

Fixed.

First Iteration

1 - This format does not have a way to make reference to existing vendors other than to completely re-specify them.

Now we only specify vendor name and the code will look up the vendor based on that name and will attach ; assuming vendors all have unique names. Vendor alphanumeric freight carrier code and name is CASE iNsEnSiTivE and UNIQUE.

2 - The format implies that new vendors can be imported at the same time as ingredients; is this the intent? It is not the requirement.

We are now dealing only with vendors that are already existing in our database, and we will be referencing them by their alphanumeric freight code. This will help with ambiguous cases of inputs like, for example, "RALPH'S FOOD INC" vs. "RALPHS FOOD INC."

3 - The use of "smart quotes" makes the example file unlikely to parse.

We are no longer using "smart quotes" to parse.

4 - Why is the vendor name case sensitive but the ingredient case insensitive?

This is no longer the case. Both vendor name and ingredient name are case insensitive.

5 - There is no discussion of many of the details of the format. How are newlines treated? How can quotes be included in strings? Is unicode permitted? Is this supposed to be JSON?

See CSV format permitted for new line treatment. Quotes not needed for CSV format. Unicode is not permitted. Now it's CSV, not JSON.

6 - The example file appears to contain errors (some missing commas).

N/A; New file format specified above;