Process Tracing with MouselabWEB

Handson experience!

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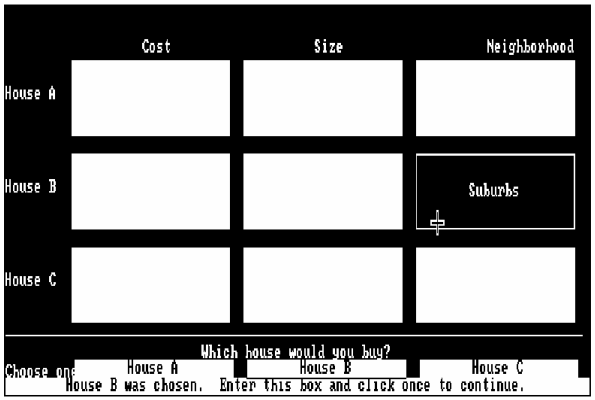
Where innovation starts

Mouselab process tracing

early computerized information boards: Mouselab for DOS

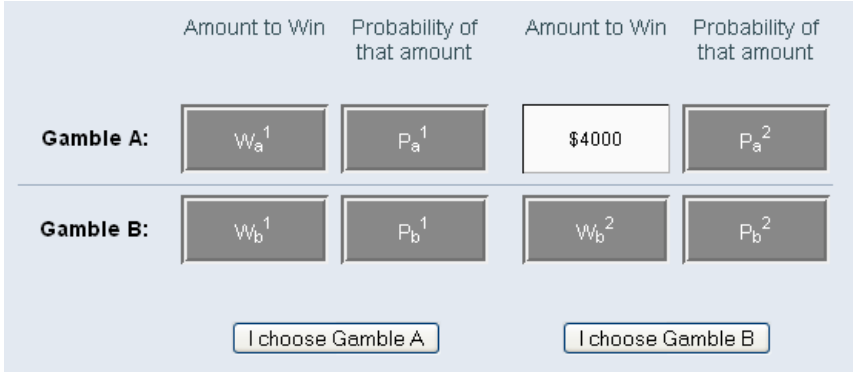
(80's and 90's)



MouselabWEB
www.mouselabweb.org

(since 2004)

Online tool with much flexibility



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Design: MouselabWEB

Goal: perform Mouselab-like process tracing experiments on the web (and in the lab)

Approach: simple HTML/javascript available in recent browsers (works in 99% of browsers)

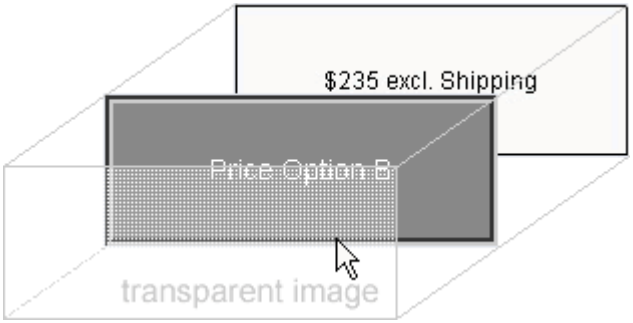
- Operating System Independent
- No network delays: (Client-side, 1/60th second precision)
- Fast and Easy: No plug-ins, small pages
- No hassle server-side scripting (php/mySQL)
- Easily extended: Open source (GNU license)

-Drawbacks:

- Some coding you have to do yourself…

How does it work?

Transparant image captures mouseovers which unhides the information



Event get recorded via javascript into a process data field

Other form data (i.e. scales) is also recorded

- Without having to predefine these variables in the database!

Every page links to another page and data is saved in between (using PHP)

Datalyser can extract the data without hassle

Features of MouselabWEB

http://www.mouselabweb.org/

Designer program to design pages with mouselabWEB **and other questions**

Datalyser program to retrieve and replay a movie of the process data

Web-based means:

- Large numbers of respondents
- A lot of heterogeneity in participants (not quite the average 20 year old student lab participant)
- Specificity of respondents: targeting specific groups

Handson workshop today

We have a mouselabWEB installation ready:

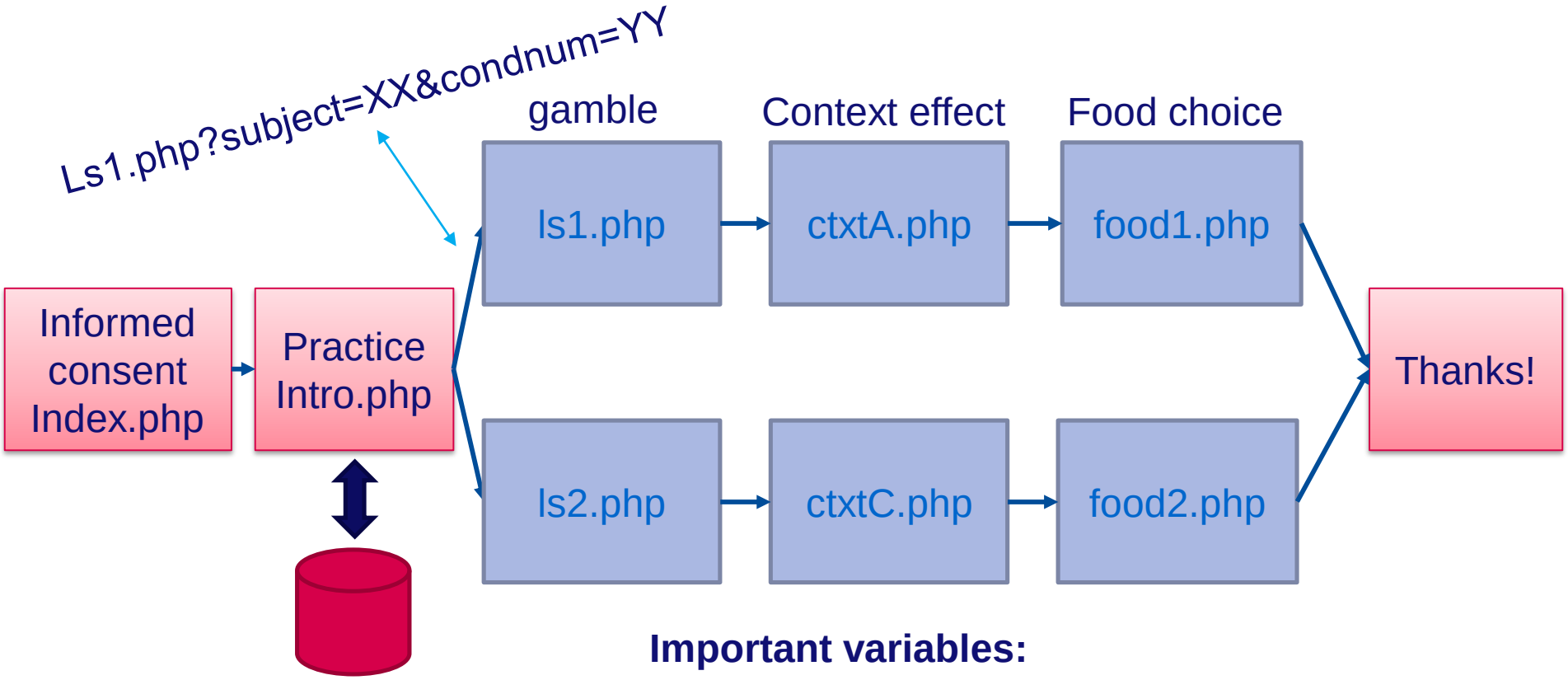
http://summerschool.mouselabweb.org

Informed consent and practice page that also assigns a subject ID and sequence number (condnum) and forks

Working in 6 groups with the **designer** to build a set of pages in groups

1. Lichtenstein and Slovic Response-mode compatibility (two conditions: choice versus WTP)
2. Two context effect tasks (compromise and attraction)
3. Food choice (two versions)

Overview of the design

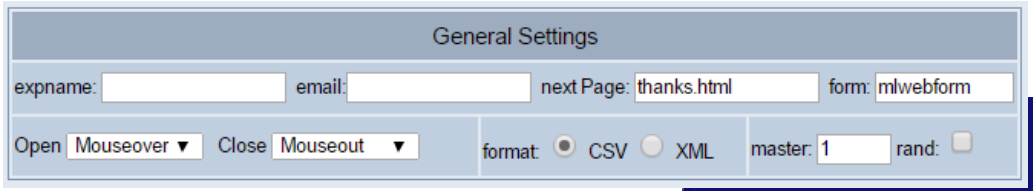


Gets subject/condnum from DB

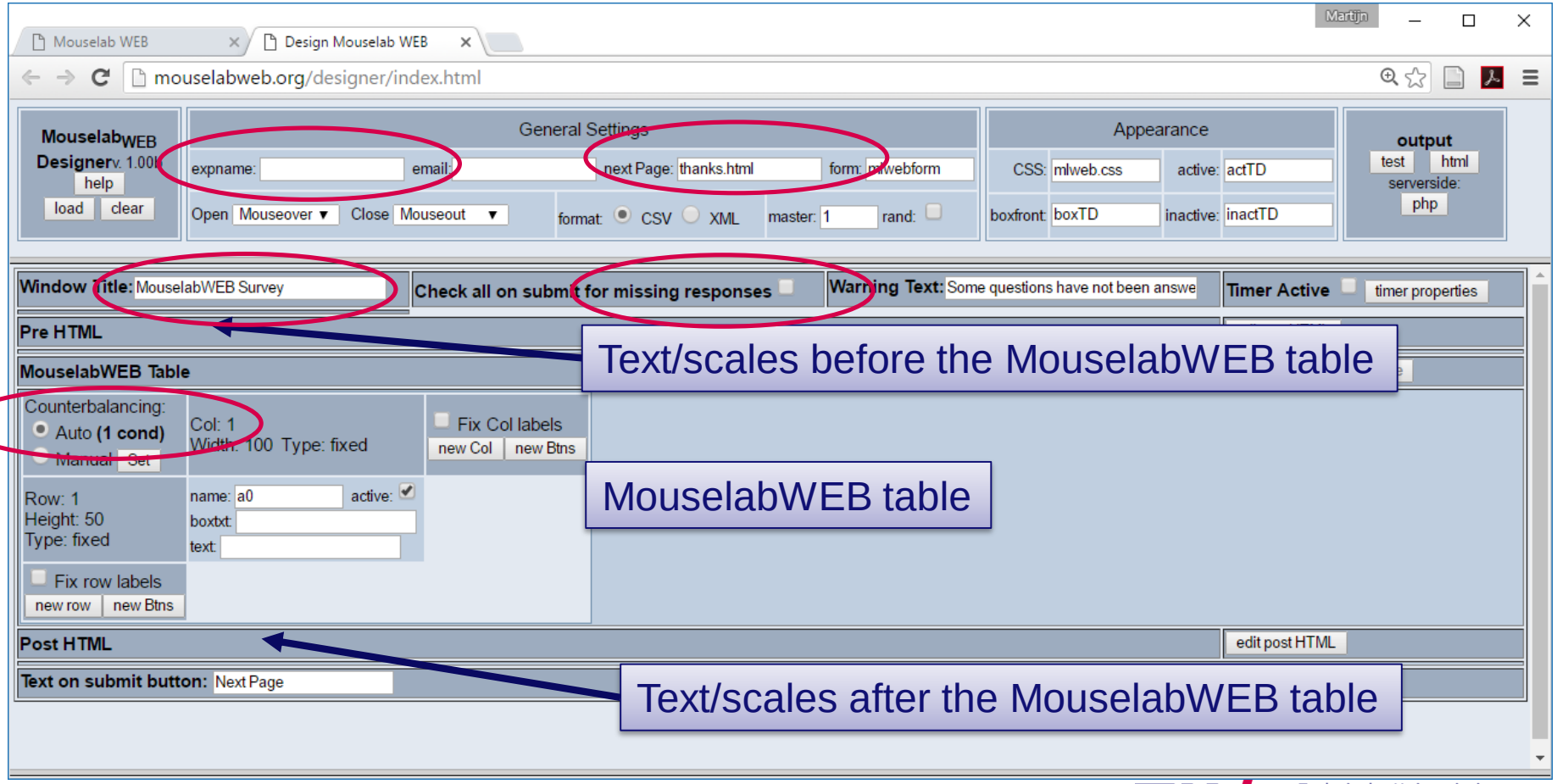
Important variables:

Expname: name of condition

nextURL: page to refer to when submitting



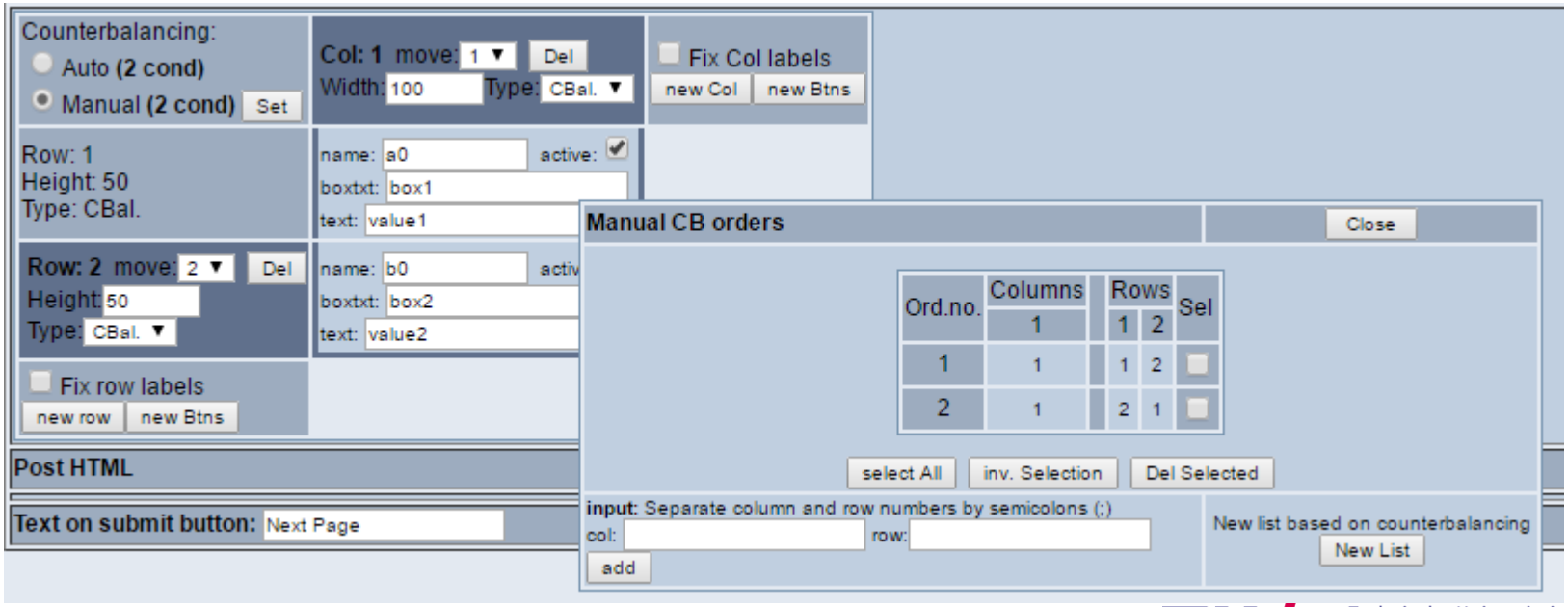
Designer


Mouselab WEB
Design Mouselab WEB
Martijn
mouselabweb.org/designer/index.html
MouselabWEB Designer v. 1.00
help
load
clear
General Settings
expname:
email:
next Page: thanks.html
form: mlwebform
Open Mouseover
Close Mouseout
format: CSV XML
master: 1
rand:
Appearance
CSS: mlweb.css
active: actTD
boxfront: boxTD
inactive: inactTD
output
test
html
serverside:
php
Window title: MouselabWEB Survey
Check all on submit for missing responses
Warning Text: Some questions have not been answe
Timer Active
timer properties
Pre HTML
MouselabWEB Table
Counterbalancing:
Auto (1 cond)
Manual
Set
Col: 1
Width: 100 Type: fixed
Fix Col labels
new Col
new Btns
Row: 1
Height: 50
Type: fixed
name: a0
active:
boxtxt:
text:
Fix row labels
new row
new Btns
Post HTML
edit post HTML
Text on submit button: Next Page
Text/scales before the MouselabWEB table
MouselabWEB table
Text/scales after the MouselabWEB table

Counterbalancing…

Condnum contains a sequence number that is passed from page to page

Counterbalancing will be done on this number



Task 1: response-mode compatibility

Lichtenstein and Slovic 1971

- More likely to choose the P-bet
- Higher WTP for the $bet

Explanation: more weight on the more compatible dimension

Two conditions: choice/WTP

- Two groups, one for each
- **Align intro text for the scenario**

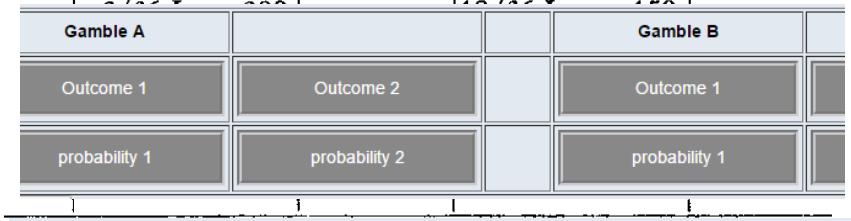
Agree on variable names

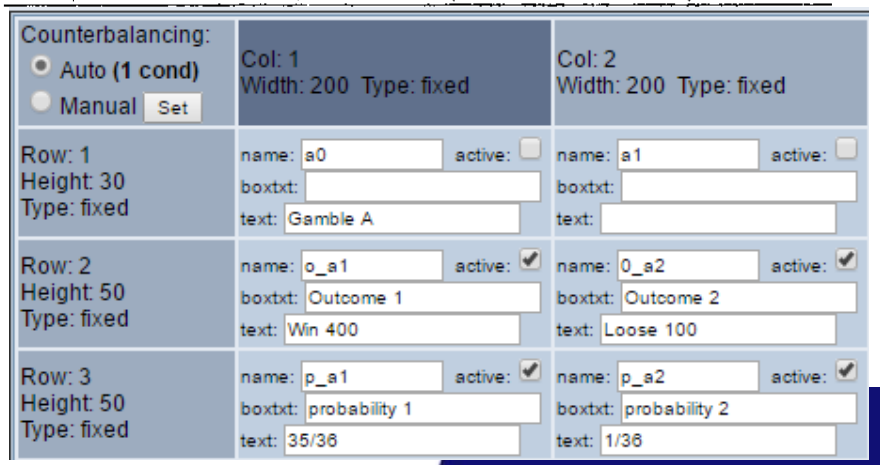
- o_a1, p_a2 etc…

agree on counterbalancing and layout (horizontal/vertical)

BETS USED IN EXPERIMENT III

Pair	P bet	Expected value	$ bet	Expected value
1	35/36 Win 400 1/36 Lose 100	386	11/36 Win 1600 25/36 Lose 150	385
2	34/36 Win 250 2/36 Lose 50	233	14/36 Win 850 22/36 Lose 150	239
3	34/36 Win 300 2/36 Lose 200	272	18/36 Win 650 18/36 Lose 100	275
4	33/36 Win 200	178	18/36 Win 500	175





Task 2: context effects

Context effects: two groups

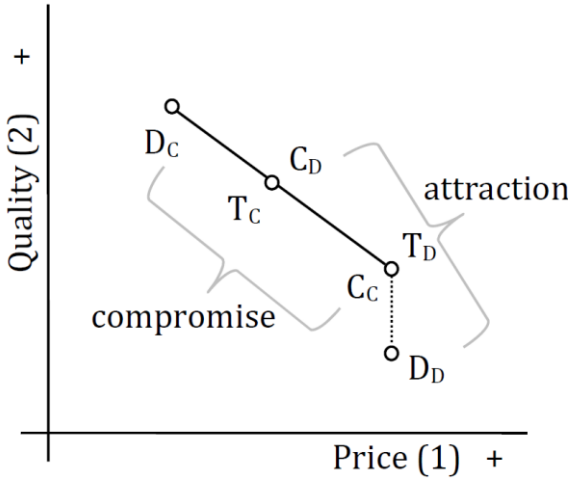
- Attraction
- compromise

I have texts available from that earlier study: perhaps adapt?

Order effects: **use counterbalancing**

- Attraction: TD first vs. C first
- Compromise: T first versus T middle

Naming boxes: Tf, Tp, Df, Dp, Cf, Cp



Task 3: Food Choice Example

Nutrition labels are important sources of information for consumers. We will investigate how consumers choose between two products either from the **yoghurt** or the **cereal** category.

Instructions could read like this:

Choose one of the following products.
Try to make a healthy choice.

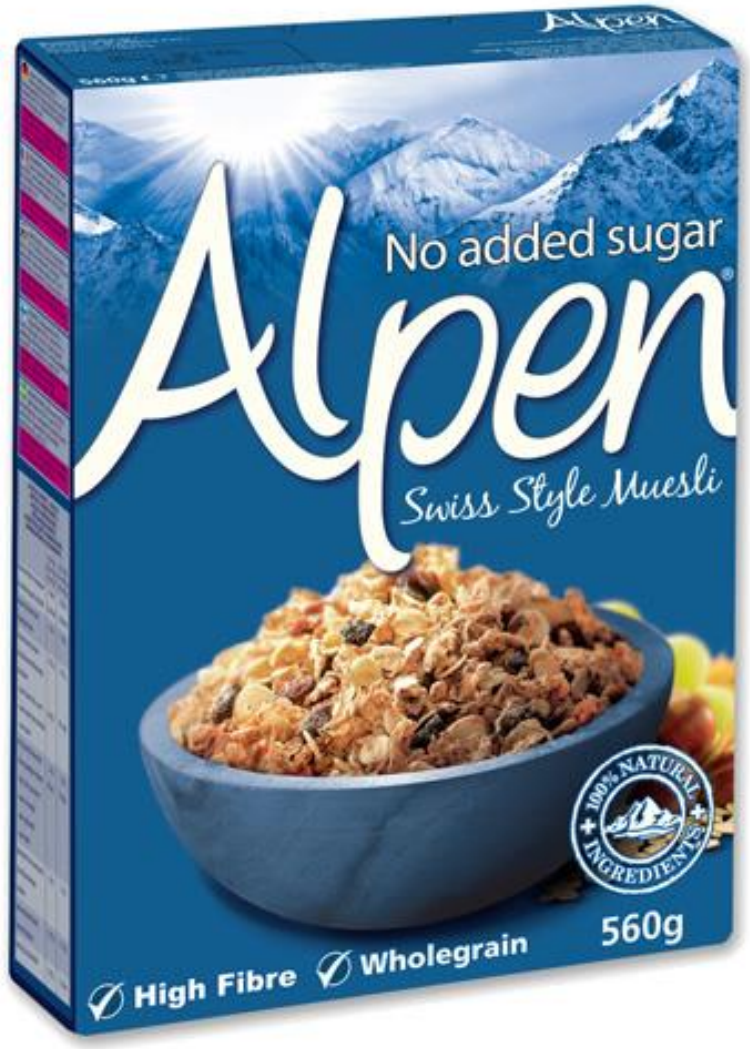
Use the following information:

Name / Brand
Total fat
Cholesterol
Sodium
Protein
Total Cabohydrates

Nutrition Facts

Serving Size: 1 cup (30g)

Amount Per Serving		
Calories 110	Calories from Fat 4	
		% Daily Value*
Total Fat 0.5 g		**1%**
Saturated Fat 0.16 g		**1%**
Trans Fat 0 g		
Cholesterol 0 mg		**0%**
Sodium 270 mg		**11%**
Potassium 50.1 mg		**1%**
Total Carbohydrate 25.23 g		**8%**
Dietary Fiber 1.2 g		**5%**
Sugars 2 g		
Sugar Alcohols		
Protein 2 g		
Vitamin A 500.1 IU		10%
Vitamin C 6 mg		10%
Calcium 249.9 mg		25%
Iron 8.4 mg		47%



Nutrition Facts

Serving Size: 3/4 Cup (30g)
Servings Per Package: TBD

Amount Per Serving	Cereal	Cereal With 1/2 Cup Skim Milk
Calories	120	160
Calories from Fat	15	15
		% Daily Value**
Total Fat 1.5g*	**2%**	**2%**
Saturated Fat 0g	**0%**	**0%**
Trans Fat 0g		
Polyunsaturated Fat 0g		
Monounsaturated Fat 1g		
Cholesterol 0mg	**0%**	**0%**
Sodium 150mg	**6%**	**9%**
Potassium 60mg	**2%**	**8%**
Total Carbohydrate 25g	**8%**	**10%**
Dietary Fiber 2g	**8%**	**8%**
Sugars 6g		
Other Carbohydrate 18g		
Protein 2g		
Vitamin A	10%	15%
Vitamin C	10%	10%
Calcium	0%	15%
Iron	45%	45%
Vitamin D	10%	20%
Thiamin	25%	25%
Riboflavin	25%	35%
Niacin	25%	25%
Vitamin B6	25%	25%
Folate (Folic Acid)	50%	50%
Vitamin B12	25%	35%
Phosphorus	4%	15%
Magnesium	2%	4%
Zinc	25%	25%
Copper	2%	2%

* Amount in cereal. One-half cup skim milk contributes an additional 65mg sodium, 6g total carbohydrate (6g sugars) and 4g protein.

** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories	2,000	2,500
Total Fat	Less than	65g	80g

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Nutrition Facts

Serving Size (100g)
Servings Per Container

Amount Per Serving	
Calories 45	**Calories from Fat** 0
	% Daily Value*
Total Fat 0g	**0%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 0mg	**0%**
Potassium 70mg	**2%**
Total Carbohydrate 13g	**4%**
Dietary Fiber 4g	**18%**
Soluble Fiber 1g	
Insoluble Fiber 3g	
Sugars 7g	
Protein 0g	

Vitamin A 2%	• Vitamin C 2%
Calcium 2%	• Iron 4%
Vitamin E 2%	• Thiamin 2%
Riboflavin 0%	• Niacin 4%
Vitamin B6 2%	• Phosphorus 2%
Magnesium 2%	• Zinc 4%
Manganese 140%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Nutrition Facts
Valeur nutritive

Per 1 container (100 g)
pour 1 contenant (100 g)

Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 110	
Fat / Lipides 2 g	**3** %
Saturated / saturés 1 g + Trans / trans 0 g	**5** %
Cholesterol / Cholestérol 5 mg	
Sodium / Sodium 50 mg	**2** %
Carbohydrate / Glucides 20 g	**7** %
Fibre / Fibres 0 g	**0** %
Sugars / Sucres 16 g	
Protein / Protéines 3 g	
Vitamin A / Vitamine A	2 %
Vitamin C / Vitamine C	0 %
Calcium / Calcium	10 %
Iron / Fer	0 %