

Advanced Designer Topics

**Demonstrative, not instructional*

Overview

- Macros
- Look-up tables
- Invisible Variables
- Masking
- Preloading long-lists of options
- Cascading options
- Single random selection of item from roster

Macros

- What is it?
 - Macros simplify writing complicated expressions with repetitive sub-expressions. You make define parts of the expression and then link them. They can be used in validation and enablement conditions.

Macros

- Example: Let's say you are conducting an employee survey and want to enable certain questions based on certain characteristics of the worker. For example, let's say you want ask some questions for public sector workers, that are female, and of child-bearing age. You could create 1 long enablement condition or split it up and define a macro.

Macros

How to do it

- So you select $\$m$ -> add new macro, and define individual macros.
- Then you can insert $\$c$ && $\$worker$ && $\$publicSector$ as an enablement condition.

The screenshot shows a software interface for defining macros. At the top, it says 'Household assets (1Q, 1G, 0R)' with a 'COMPILE' button and a status 'OK, saved at 16:49'. Below this, there is a list of 5 macros, each with a name, a definition, and a description. The macros are:

- $\$c$** : `(age.InRange(15,44) && (sex==2))`
Women of childbearing age
- $\$worker$** : `(occupation.InList(4,5,9,11))`
Worker definition based on occupation classification
- $\$publicSector$** : `(sector==2)`
Public sector definition
- $\$skilled$** : `((educYears>12) || (technicalDegree==1) || (professionalDegree==1))`
Skilled workers are ones with more than 12 years of training or with advanced technical or professional degrees.
- $\$focus$** : `$\$worker$ && $\$publicSector$ && $\$skilled$`
Population of interest for chapter C

At the bottom of the interface, there is a button labeled 'ADD NEW MACRO'.

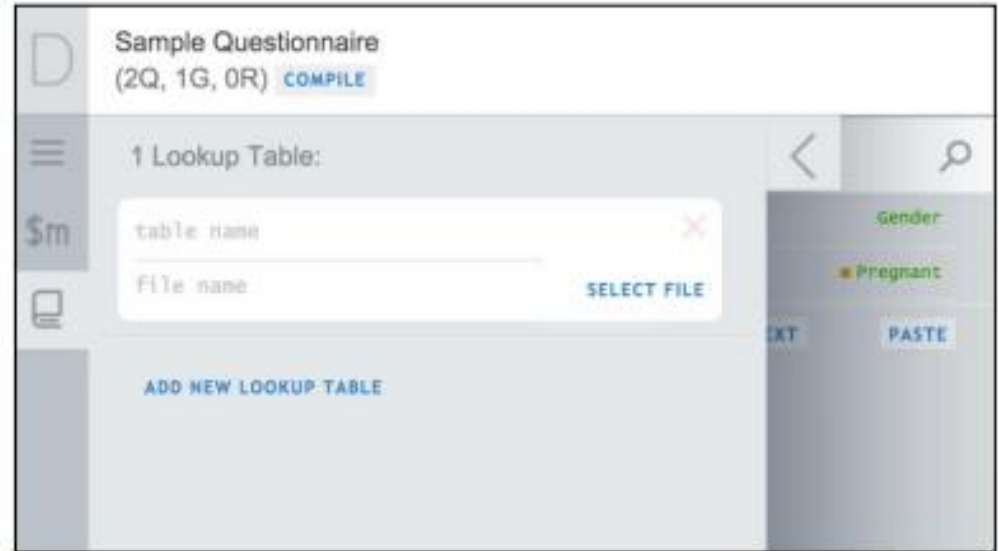
Look-up tables

- What is it?
 - **Lookup tables** are reference tables that may be used in validation and enabling conditions. They are prepared as external tab-delimited files and uploaded to the questionnaire in the Designer.
- Examples of possible application:
 - Crop yields by crop
 - Salary ranges by occupation
 - Price ranges for certain products

Look-up tables

How to do it

- Select book looking icon
- Upload table



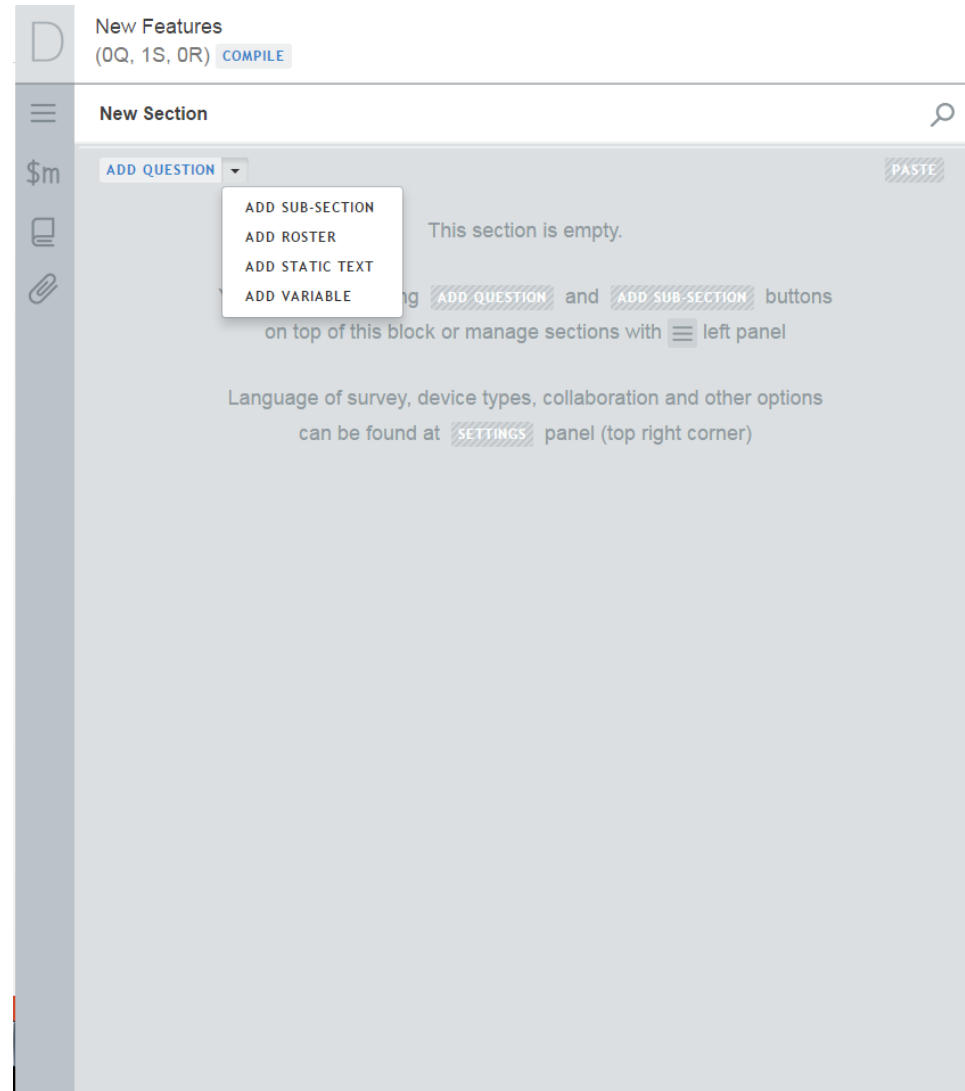
Invisible Variables

- What is it?
 - Variables are created kind of like questions, but are actually derived from the answers to other questions. They do not appear in the questionnaire, but do appear in the final dataset.
- Examples of possible application:
 - Computing total number of hours worked if average per day, and # of days is asked
 - Compute yield if production, and area are asked

Invisible Variables

How to do it

- Select “Add Variable”
- Define it



Masking


- What is it?
 - **Masking** is used to define the structure of a text question or *string*.
- Examples of possible application:
 - Phone numbers
 - Flight numbers
 - Id codes

Masking

How to do it

- Create text question, and define pattern.

Examples	Represent
~	Alpha character (A-Z,a-z)
#	Numeric character (0-9)
*	Alphanumeric character (A-Z,a-z,0-9)
##/##/####	Date
(###) ###-####	Phone number
AA####	Flight number
~*-###-~###	Id code

Pattern in the designer	Unanswered question on the tablet	Answered question on the tablet
 <p>Pattern (?)</p> <p>UY~*-###-~###</p>	 <p>Id code</p> <p>Tap to enter text (UY_ _ _ _)</p>	 <p>Id code</p> <p>UYA3-583-D251</p>

Pre-loading long lists of options

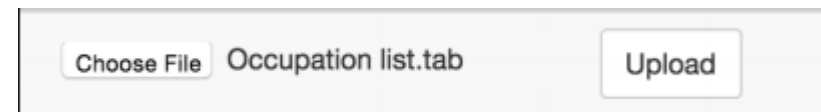
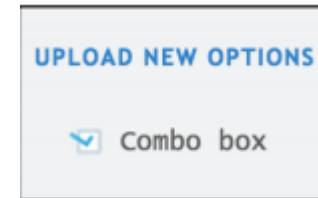
- What is it?
 - It's referred to "combo box" in the designer.
Essentially it's used to load long lists of categorical options with codes instead of entering them one-by-one.
- Examples:
 - Crops with codes
 - Occupations with codes

Pre-loading long lists of options

How to do it

- Create .tab file
- Upload it.

	A	B
1	11	Armed Forces
2	111	Legislators
3	112	Government Officials
4	114	Officials of special interest organizations
5	121	Directors and Chief Executives
6	122	Production and Operations Department Managers
7	123	Other Department Managers
8	131	General Managers/ Managing Proprietors
9	211	Physicists - Chemists and Related Professionals
10	212	Mathematicians - Statisticians and Related Professionals
11	213	Computing Professionals
12	214	Architects - Engineers and Related Professionals
13	221	Life Science Professionals



Value	Title
11	Armed Forces
111	Legislators
112	Government Officials
114	Officials of special interest organizations
121	Directors and Chief Executives
122	Production and Operations Department Managers
123	Other Department Managers
131	General Managers/ Managing Proprietors

Cascading Combo Box

- What is it?
 - Filters answer options based on the answer to previous question.
- Examples:
 - Select Region, and filter cities based on selected region
 - Select occupation category, then filter occupations

Cascading Combo Box

- How to do it:
 - Same as combo box, but w/ extra column specifying parent code
 - Mark “is cascading”
 - Specify parent

	A	B	C	D
1	1	Region1	1	
2	2	Region2	1	
3	3	Region3	1	
4	4	Region4	1	
5	5	Region5	1	
6	6	Region6	1	
7	7	Region7	1	
8	8	Region8	1	
9	9	Region9	1	
10	10	Region10	1	
11	11	Region11	1	
12	12	Region12	1	
13	13	Region13	1	
14	14	Region14	1	
15	15	Region15	2	
16	16	Region16	2	
17	17	Region17	2	
18	18	Region18	2	

ADD OPTIONS

Is cascading

Select parent question

Select question

You must select the parent question

Single Random selection from Roster

- What is it?
 - A random number is b/t 0 and 1 which can be used for randomized selection. This is automatically generated for ever
- Examples:
 - Random selection of hh member from roster
 - Random selection of employee from employee roster

Questions????