Q Cheat Sheets

What to do when you cannot figure out how to use Q

Right-click on whatever it is you are trying to change	
Type into Search	Search features and data
Get help interpreting a table	**Help ▶ Interpret This Table**
Read the wiki	**Help ▶ Q Wiki (Online Reference Manual)**
Do some training modules	**Help ▶ Online Training**
Contact support	support@q-researchsoftware.com

What to do when the data looks wrong

Contact the person that set up the project (if you did not do it yourself)	
Check the base	base n = 0; total n = 13; 13 missing; 88% filtered out;
Check **n** *and* **base n**	**Statistics – Cells ▶ n** or **Base n**
Check statistical testing	Show significance: Compare columns **Edit ▶ Project/Table Options ▶ Statistical Assumptions**
Check that the **Question Type** *setting makes sense on the* **Variables and Questions** tab	Either go to the **Variables and Questions** tab and find the data, or, press to the right of the relevant dropdown menu
Check that the **Filter** *is correct*	E.g., Filter: Q8. One or more message not recalled
Check that the **Weight** *is appropriate*	E.g., Weight: None
Check that the correct rules are applied and, try and remove the rules	If a Rule has been applied, a pink Rules tab will appear at the bottom of the table. Control when applied using the **Apply** dropdowns Table Rules
Hide or unhide variables	On the **Variables and Questions** tab, press H
Check if empty rows/columns are are hidden	Check to see if is depressed (this hides empty rows and columns)
Review the ***Value Attributes***	Right-click on a row or column heading and select **Values**
Review how a variable has been constructed	1. Go to the **Variables and Questions** tab 2. Find the variable 3. Right-click: **Edit Variable**
Contact support	**File ▶ Send Pack ▶ To Support** and indicate which table and which cells in the table look wrong and why

Data files and file management

When you analyze data in Q you are always using two files:

- Project file (`.Q`): this contains all the work you have done in Q.
- Data file (e.g., `.sav`): this contains your survey data; Q does not change the raw data.

Start a new project	1. **File ▶ Import New Data File (New Project)** 2. Either click **Yes** to all questions, or, use a special-purpose QScript for cleaning 3. **Automate ▶ Brows Online Library ▶ Preliminary Project Setup**
Starting using a QPack	1. Double-click on the QPack *or* **File ▶ Open Existing Project** 2. **File ▶ Save Project** 3. Read any messages carefully (as you may destroy work)
Opening a project	**File ▶ Open Existing Project** or **Recent Projects**
Share projects	**File ▶ Send Pack** This sends the project and data files
Update project with new data	**File ▶ Import Updated Data File (Current Project)**
Merge different projects	Open two copies of Q and drag and drop tables and variables from one project to another
Merge data files	**Tools ▶ Merge Data Files**
Stack data	**Tools ▶ Stack SPSS Data File**
Panel data (e.g., occasion-based data)	1. Stack the data (if necessary) 2. **File ▶ Add Data to Project** 3. **File ▶ Edit Data File Relationships**

Weights and filters

Weights and filters can be applied to the entire project or to selected tables and plots.

Applying filters and weights	Filter: France AND Total sample Weight: None
Creating a weight	**Create ▶ Variables and Questions ▶ Variable(s) ▶ Weight**
Allowing variables to be selectable as weights and filters	On the **Variables and Questions** tab, press F W
Creating simple filters	**Automate ▶ Browse Online Library ▶ Create Filters from Selected Data**
Creating filters from a table	Create a table, select the relevant cells and press
Creating complicated filters	Find filters created from a table on the **Variables and Questions tab (V&Q),** right-click: **Edit variable**

Tables and plots

Note that the one of the main ways of modifying a table is to change the data in the table, and when this is done all other tables using the same data will also change (see Manipulating Data)

View additional statistics	Right-click: **Statistics – Cells/Right/Below** ▶
Duplicate a table	
Changing the data	
Create plots in Q	Select from **Show Data As** (top middle of the screen)
Customizing the look and feel of tables	**File** ▶ **Project Options** and **Table Styles**
Lock the dropdowns used to select data on a table	Right-click on table(s) in the *Report* and select **Lock**
Create folders	Right-click on a table in the *Report* and **Add group**
Create lots of tables	**Automate** ▶ **Browse Online Library** ▶ **Create Tables** ▶ **Banner Tables** (this also automatically creates banners and flattens data – see Manipulating Data)
Simultaneously change lots of tables/plots	Select them all at the same time and then modify as normal (e.g., apply filters, right-click and **Statistics – Cells**

Viewing raw data

Seeing the raw data for a question	**Brown dropdown** menu: **RAW DATA**
Seeing raw data for lots of variables in Excel	1. Select the variables in the **Variables and Questions** tab 2. Right-click: **Export variables to Excel** 3. In Excel: **VIEW** ▶ **Freeze Panes** ▶ **Freeze Top Row** 4. In Excel: **DATA** ▶ **Filter**
Seeing all the raw data in Q	All the raw data is viewable on the **Data** tab. You can sort columns, show filters and re-order the columns (this is done on the **Variable and Questions** tab)

Exporting

Any chart templates that you create in Excel, PowerPoint and Word, are available in the **Format** dropdown that appears when exporting. See also Viewing raw data.

Export to PDF	**File** ▶ **Export to PDF**
Create online report	**File** ▶ **Share as Dashboard**
Export to Excel, PowerPoint and Word	
Automatically update Office exports	
Setting default chart types for Office	1. Create *Chart Templates* using Excel, Word or PowerPoint 2. **Edit** ▶ **User Options** ▶ **Export Chart Defaults**

Manipulating data

There are lots of tools for manipulating data. These are only some of the more commonly-used basic tools.

Merging	Drag and drop, or, right-click: **Merge**
Creating NETs	Right-click: **Create NET**
Reproducing merging and creating NETs on other similar questions	**Automate** ▶ **Browse Online Library** ▶ **Modifying Data** ▶ **Use a Question as a Template for Modifying Other Questions**
Re-ordering categories/sorting	• Drag and drop • Right-click: **Sort By** • **Automate** ▶ **Online Library** and search for *sort*
Removing a category and rebasing	• Right-click: **Remove** (only for mutually exclusive options) • Filtering: Create a NET and right-click on it: **Create filter**
Removing a category without rebasing	Right-click: **Hide**
Switch between % and averages as main statistics on a table	1. Right-click on the row or column headers of the data on the table 2. Select the question (its name will appear near the bottom) 3. Select **Restructure** and the appropriate option.
Creating a 2nd version of a question	Right-click on table row/column heading: **Duplicate Question**
Comparing two questions (e.g., pre and post)	1. Go to the **Variables and Questions** tab 2. Select the variables in the questions. 3. Right-click: **Copy and Paste Variable(s)** ▶ **Exact copy** 4. Select the newly-created copies 5. Right-click: **Set Question** 6. Choose an appropriate **Question Type** a. **Pick One – Multi** if combining two categorical questions **b. Number – Multi** if combing two numeric variables **c. Number – Grid** if combing sets of numeric variables **d. Pick Any – Grid** if comparing multiple response questions
Banding numeric variables	1. See *Creating a 2nd version of a question* 2. See *Switch between % and averages as main statistics on a table*
Recoding (changing **Value Attributes***)*	Right-click on table row/column heading, select **Values** and change the numbers in the **Value** column
Flatten (i.e., change a grid to a single column)	**Automate** ▶ **Browse Online Library** ▶ **Create New Variables** ▶ **Flatten**
Create a banner	1. Create a new table 2. **Create** ▶ **Banner…** and then select the banner in the **brown** drop-down menu
Nest one variable within the variables in a Pick One – Multi (i.e., grid)	• **Automate** ▶ **Browse Online Library** ▶ **Filtering** ▶ **Filter One Question by Another Question**, or • Stack the data: **Tools** ▶ **Stack SPSS .sav File**
Create a numeric variable	**Create** ▶ **Variables and Questions** ▶ **Variable(s)** ▶ **JavaScript Formula** ▶ **Numeric**

	Example: `q1 + q2 * 14 / 3`
	If statement: `==` *means "equals",* `||` *means "or"*, and `&&` means "and":
	`if ((age <= 39 || fit == 1) && gender == 1) 1; else 2;`
	Shorthand if statement
	`age > 39 ? 1 : 2;`
	Multi-line expression
	`var respondent_age = d1;`
	`var respondent_gender = d2;`
	`var age_by_gender = respondent_age + 100 * respondent_gender;`
	`age_by_gender;`	

	Create a categorical variable	1. See *Create a numeric variable* 2. See *Switch between % and averages as main statistics on a table*
	Recoding into a different variable	1. Right-click: **Copy and Paste Variable(s) ▶ Exact copy** 2. Modify the variable as per your needs
	Standard mathematical functions	**V&Q: Insert Ready-Made Formula(s) ▶ Mathematical Functions (by Case)**
	Creating a binary variable	Follow the steps for creating filters **Weights and Filters**

Automation	*Automatically creating variants of a derived variable*	**V&Q: Insert Ready-Made Formula(s) ▶ Use as Template for Replication**
	Creating a custom QScript	1. Type the name of a similar QScript ( ) into the *Search* box 2. Hover your mouse over the QScript in **QScripts and Rules**. 3. Press **Edit a copy** 4. Modify as per your needs and save and close it. 5. **Automate ▶ Run QScript (Macro) from file**
	Creating a custom Rule	**Automate > Custom Rule > Edit JavaScript**, or, follow the same process as with *Creating a custom QScript,* except using a Rule ( ).
	Automatic dashboard updating	**web-q.com/API**

Factor analysis / Principal Components Analysis	*Standard Principal Components Analysis (PCA)*	1. Create a single **Number - Multi** question with all the variables that you wish to include 2. **Create ▶ Traditional Multivariate Analysis ▶ Principal Components Analysis** 3. Re-run the analysis with different numbers of components (if desired). It can be useful to delete the components that are created.
	Non-linear Principal Components Analysis	**Create ▶ Map ▶ Type of Analysis ▶ Use the questions selected below (multiple correspondence analysis)**
	Saving factors from non-linear PCA	Choose **Save factors** on the dialog box

Brand association analysis	*Brand Maps*	1. Create a table of the data (e.g., a SUMMARY table of a **Pick Any – Grid** question) 2. **Create ▶ Map ▶ Type of Analysis ▶ Use the current table: Correspondence Analysis** 3. Choose your preferred **Plotting** option
	Driver analysis	1. Stack the data 2. Use one of the methods described below for Regression
	Residual analysis	1. Create a table of the data (e.g., a SUMMARY table of a **Pick Any – Grid** question) 2. **Statistics – Cells ▶ z-Statistics**, which shows normalized residuals (i.e., a score of more than 1.96 is significantly high at the 0.05 level, ignoring multiple comparison issues)

Max-Diff and Choice Modeling Please note that Q does not currently create experimental designs, but plan to launch this capability in 2016	*Importing the experimental design into a project*	**Automate ▶ Browse Online Library ▶ Max-Diff ▶ Max-Diff Setup from an Experimental Design**, or, **… Automate ▶ Browse Online Library ▶ Choice Modeling ▶ Choice-Based Conjoint (CBC) Setup**
	Viewing statistics	1. Right-click and select **Statistics – Cells** 2. Select all the cells on the table (except headings) and press **α**
	Segmentation	**Create ▶ Segments** and press **OK** (see **Segmentation**)
	Coefficients for each respondent	1. Set the **Case IDs** in the **Data** tab 2. Create segments, or, another mixture model (**Create ▶ Segments ▶ Advanced**) 3. Right-click on a segment and select **Save Individual-Level Parameter Means and Standard Deviations** 4. Select **RAW DATA** in the Brown dropdown menu
	Profiling the results	Create crosstabs with the *Question* created when the experimental design was imported (i.e., this is vastly superior to using the individual-level coefficients)

Correlation, Regression and Driver Analysis	*Correlation*	Select **Number** or **Number – Multi** questions in the **Blue** and **Brown** dropdowns
	Linear Regression	1. Ensure that the *Dependent Variable* has a **Question Type** of **Number** 2. If you are planning to use stepwise regression, ensure that variables that you wish grouped together are in the same question, and variables that you want treated separtely are in separate questions 3. Ensure that any numeric independent variables are **Number** or **Number – Multi** and any that you wish to treat as categorical are a categorical Question Type 4. **Create ▶ Traditional Multivariate Analysis ▶ Regression**
	Binary Logit	Same as linear regression, except with a **Pick One** dependent variable with two categories
	Ordered Logit	Same as linear regression, except with a **Pick One** dependent variable that has **Variable Type** of **Ordered Categorical**
	Multinomial Logistic	Same as linear regression, except with a **Pick One** dependent variable that has **Variable Type** of **Categorical**
	MNL, Rank-Ordered Logit, Latent Class Logit, Random Parameters Logit	1. Setup the regression as an **Experiment** (i.e., this is what is done when you setup a Max-Diff or Choice Modeling experiment) 2. **Create ▶ Segments ▶ Advanced**
	Automating large numbers of regressions	Setup the regression as an **Experiment** (i.e., this is what is done when you setup a Max-Diff or Choice Modeling experiment), and then create tables, each which will contain regressions
	TURF	**Automate ▶ Browse Online Library ▶ Multivariate ▶ TURF…**
	Shapley regression, Kruskal Driver Analysis, etc.	**Automate ▶ Browse Online Library ▶ Multivariate ▶ Driver (Importance) Analysis**

Segmentation	*Preparing the data*	Create appropriate derived variables (see the earlier section). E.g., • Show rating scales as Top 2 Boxes (i.e., **Pick Any**) • Show rating scales **Number – Multi** • Show rating scales as **Ranking** • **Automate ▶ Browse Online Library ▶ Create New Variables ▶ Standardize Data by Case** • Principal Components Analysis
	Create the segments	1. **Create ▶ Segments** 2. Select the desired questions in **Questions to Analyze** 3. Ensure that **Form segments by** is set to **splitting by individuals (latent class analysis, cluster analysis, mixture models**) 4. Press **Advanced** and you have additional options. Note that the defaults in segmentation are generally pretty useful, but if you modify advanced options you can quite easily create invalid analyses. 5. Re-run the analysis with: • Different input variables • Different Question Types for the input variables 6. Different number of segments (**Create ▶ Segments ▶ Number of segments per split ▶ Manual**
	Profiling the segments	**Create ▶ Smart Tables**

Question Types

The way that Q presents data is determined by the underlying **Question Type** of the data. Question types are set automatically when importing data and can be modified in the **Variables and Questions** tab.

Question Type	Description	Example
Text	Each observation in the data file contains text.	What is your name? _____
Text – Multi	Multiple related fields of text for each observation in the data file.	Please type in the names of your three favorite soft drinks 1.____ 2. ____ 3.____
Pick One	A set of mutually exclusive and exhaustive categories (i.e., *nominal* or *ordinal* scales).	Are you... ❍ Male ❍ Female
Pick One – Multi	A series of **Pick One** questions sharing the same scale points.	Please rate your satisfaction with the following banks Low Med High Westpac ☐ ☐ ☐ ANZ ☐ ☐ ☐ St George ☐ ☐ ☐
Number	A numeric variable (i.e., *interval* or *ratio* scale).	How many glasses of wine did you drink last night? ____
Number – Multi	A series of numeric variables measured on the same scale.	Next to the brands below, please indicate how many times you have purchased them in the past week Coke ___ Pepsi ___ Fanta ___
Pick Any	What is usually referred to in market research as a multiple response or multi question. Respondents are asked to pick all that apply from a list of options.	Which of the following have you bought in the past week? ☐ Coke ☐ Pepsi ☐ Fanta
Pick Any – Compac	Same as **Pick Any** but stored in a more compact format (see the *Q Reference Manual*).	
Pick Any – Grid	A set of binary variables that can be thought of as being ordered in two dimensions (e.g., a **Pick Any** question asked in a loop).	Which of these brands are cool? ☐ Coke ☐ Pepsi ☐ Fanta Which of these brands are young? ☐ Coke ☐ Pepsi ☐ Fanta Which of these brands are sexy? ☐ Coke ☐ Pepsi ☐ Fanta
Number – Grid	A question requiring numeric responses, where the variables can be thought of as being ordered in two dimensions (e.g., a **Number – Multi** question asked in a loop).	In the past month, how many *economy flights* did you take on... Qantas ___ United ___ SAS ___ ...and how many *business class flights* did you take on... Qantas ___ United ___ SAS ___
Date	A question containing a date.	What is your date of birth? ____ / ____ / 19____
Ranking	Multiple numeric variables that represent a ranking, where the highest number is most preferred and ties are permitted.	Rank the following brands according to how much you like them... Coke ____ Pepsi ____ Fanta ____
Experiment	A **Number**, **Number – Multi**, **Ranking**, **Pick One** or **Pick One – Multi** question, where the alternatives presented were varied using an experimental design.	Which of these would you buy? Coke $2.00 Can | Pepsi $4.20 Bottle | Fanta $3.20 Flask