







Q Cheat Sheet – Standard Training

What to do when you cannot figure out how to use Q	<i>Right-click on whatever it is you are trying to change</i>	
	<i>Get help about the screen you are on</i>	Help ► Help
	<i>Get help interpreting a table</i>	Help ► Interpret This Table
	<i>Read a short manual</i>	Help ► Q Quick Start Guide
	<i>Read the wiki</i>	Help ► Q Reference Manual
	<i>Search the wiki</i>	Help ► Online Documentation Search
	<i>Do some training modules</i>	Help ► Online Training
<i>Contact support</i>	support@q-researchsoftware.com	

What to do when the data looks wrong	<i>Contact the person that set up the project (if you did not do it yourself)</i>	
	<i>Check the base</i>	base n = 0; total n = 13; 13 missing; 88% filtered out;
	<i>Check n and base n</i>	Statistics – Cells ► n or Base n
	<i>Check statistical testing</i>	Show significance: Compare columns
	<i>Check that the Question Type setting makes sense on the Variables and Questions tab</i>	Either go to the Variables and Questions tab and find the data, or press to the right of the relevant dropdown menu
	<i>Check that the Filter is correct</i>	E.g., Filter: Q8. One or more message not recalled
	<i>Check that the Weight is appropriate</i>	E.g., Weight: None
	<i>Check that the correct rules are on and, try and remove the rules</i>	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.
	<i>Hide or unhide variables</i>	On the Variables and Questions tab, press H
	<i>Check to see if blank rows/columns are hidden</i>	Check to see if is depressed (this hides empty rows and columns)
	<i>Review the Value Attributes</i>	Right-click on a row or column heading and select Values
<i>Review how a variable has been constructed</i>	1. Go to the Variables and Questions tab 2. Find the variable 3. Right-click: Edit Variable	
<i>Contact support</i>	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: <ul style="list-style-type: none">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 change the raw data.	<i>Start a new project</i>	1. File ► Import New Data File (New Project) 2. Either click Yes to all questions, or, use a special-purpose QScript for cleaning 3. Tools ► QScripts ► Online Library ► Preliminary Project Setup scripts
	<i>Starting using a QPack</i>	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)
	<i>Opening a project</i>	File ► Open Existing Project or Recent Projects
	<i>Share projects</i>	File ► Send Pack This sends the project and data files.
	<i>Update project with new data</i>	File ► Import Updated Data File (Current Project)
	<i>Merge different projects</i>	Open two copies of Q and drag and drop tables and variables from one project to another
	<i>Merge data files</i>	Tools ► Merge Data Files
	<i>Stack data</i>	Tools ► Stack SPSS Data File
	<i>Panel data (e.g., occasion-based data)</i>	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.	<i>Applying filters and weights</i>	Filter: France AND Total sample Weight: None
	<i>Allowing variables to be selectable as weights and filters</i>	On the Variables and Questions tab, press F W
	<i>Creating simple filters</i>	Automate ► Online Library ► Create New Variables ► Create Filters from Selected Questions
	<i>Creating filters from a table</i>	Create a table, select the relevant cells and press
	<i>Creating complicated filters</i>	Find filters created from a table on the Variables and Questions tab (V&Q), right-click: Edit variable

Tables and plots		
	View additional statistics	Right-click: Statistics – Cells/Right/Below ▶
	Save a copy of a table	
	Changing the data	Country <input type="text"/> SUMMARY <input type="text"/>
	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 a table so the data cannot be changed	Right-click on table(s) in the <i>Report</i> and select Lock
	Create folders	Right-click on a table in the <i>Report</i> and Add group
	Create lots of tables	Automate ▶ 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)
	Exporting	  

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](#))







Viewing raw data		
	Seeing the raw data for a question	Brown dropdown menu: SUMMARY
	Seeing raw data for lots of variables in Excel	<ol style="list-style-type: none"> 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).

Manipulating data		
	Merging	Drag and drop or right-click: Merge
	Creating NETs	Right-click: Create NET
	Reproducing merging and creating NETs on other similar questions	Automate ▶ Online Library ▶ Modifying Rows and Columns – Use a Question as a Template for Modifying Other Questions
	Re-ordering categories/sorting	<ul style="list-style-type: none"> • Drag and drop • Right-click: Sort By • Automate ▶ Online Library and search for <i>sort</i>
	Removing a category and rebasing	<ul style="list-style-type: none"> • Right-click: Remove (only for mutually exclusive options) • Filtering
	Removing a category without rebasing	Right-click: Hide
	Switch between % and averages as main statistics on a table	V&Q: Change Question Type from Pick One / Pick One – Multi to/from Number / Number - Multi
	Creating a 2 nd version of a question	Right-click on table row/column heading: Duplicate Question
	Creating a question from a variable	<ol style="list-style-type: none"> 1. Go to the Variables and Questions tab 2. Select the applicable variable 3. Right-click: Copy and Paste Variable(s) ▶ Exact copy
	Comparing two questions (e.g., pre and post)	<ol style="list-style-type: none"> 1. Go to the Variables and Questions tab 2. Select 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 <ul style="list-style-type: none"> • Pick One – Multi if combining two categorical questions • Number if combining two numeric variables • Number – Grid if combining sets of numeric variables • Pick Any – Grid if comparing multiple response questions
	Banding numeric variables	<ol style="list-style-type: none"> 1. See <i>Creating a 2nd version of a question</i> 2. See <i>Switch between % and averages as main statistics on a table</i>
	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 ▶ Online Library ▶ Modifying Rows and Columns – Flatten
	Create a banner	<ol style="list-style-type: none"> 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)	<ul style="list-style-type: none"> • Automate ▶ Online Library ▶ Create New Variables - Filter One Question by Another Question, or • Stack the data: Tools > Stack SPSS .sav data file
	Create a numeric variable	On the Variables and Questions tab, right-click: Insert Variable(s) ▶ JavaScript Formula ▶ Numeric

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

Example if statement: == means "equals", means "or", and && means "and":	
<code>if ((age <= 39 fit == 1) && gender == 1) 1; else 2;</code>	
Shorthand if statement	
<code>age > 39 ? 1 : 2;</code>	
Multi-line expression	
<code>var respondent_age = d1; var respondent_gender = d2; var age_by_gender = respondent_age + 100 * respondent_gender; age_by_gender;</code>	
Create a categorical variable	1. Create a numeric variable 2. Change the Question Type to Pick One
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	If binary, follow the steps for creating filters Weights and Filters

Automation	Setting default chart types for Office	1. Create <i>Chart Templates</i> using Excel, Word or PowerPoint 2. Edit ► User Options ► Export Chart Defaults
	Automatically creating variants of a derived variable	V&Q: Insert Ready-Made Formula(s) > Use as Template for Replication
	Creating a custom QScript	1. Find a similar QScript in Automate > Online Library 2. Press More Information at the bottom of the description 3. Copy the code in the box 4. Open a text editor, paste, and modify as per your needs 5. Save with a file extension of .QScript 6. Automate ► Run QScript (Macro) from file
	Creating a custom Rule	1. Find a similar Rule in Automate ► Online Library 2. Press More Information at the bottom of the description 3. Copy the code in the box 4. Automate ► Custom Rule ► Edit JavaScript 5. Paste the code and modify as per your needs 6. Press Close, Yes and OK
	Automatic dashboard updating	web-q.com/API

Exporting and formatting tables Any chart templates that you create in Excel, PowerPoint and Word, are available in the Format dropdown that appears when exporting.	Export to PDF	File ► Export to PDF
	Create online report	File ► Share as Dashboard
	Export to Excel, PowerPoint and Word	  
	Automatically update Office exports	  
	Exporting variables to Excel	Select the variables on the Variables and Questions tab, right-click and select Export Variables to Excel

Automation	Setting default chart types for Office	3. Create <i>Chart Templates</i> using Excel, Word or PowerPoint 4. Edit ► User Options ► Export Chart Defaults
	Automatically creating variants of a derived variable	V&Q: Insert Ready-Made Formula(s) > Use as Template for Replication
	Creating a custom QScript	7. Find a similar QScript in Automate > Online Library 8. Press More Information at the bottom of the description 9. Copy the code in the box 10. Open a text editor, paste, and modify as per your needs 11. Save with a file extension of .QScript 12. Automate ► Run QScript (Macro) from file
	Creating a custom Rule	7. Find a similar Rule in Automate ► Online Library 8. Press More Information at the bottom of the description 9. Copy the code in the box 10. Automate ► Custom Rule ► Edit JavaScript 11. Paste the code and modify as per your needs 12. Press Close, Yes and OK
	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

Correlation, Regression and Driver Analysis	<i>Correlation</i>	Select Number or Number – Multi questions in the Blue or Brown dropdowns
	<i>Linear regression</i>	<ol style="list-style-type: none"> 1. Ensure that the <i>Dependent Variable</i> 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 separately 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
	<i>Binary logit</i>	Same as linear regression, except with a Pick One dependent variable with two categories
	<i>Ordered logit</i>	Same as linear regression, except with a Pick One dependent variable that has Variable Type of Ordered Categorical
	<i>Multinomial Logistic</i>	Same as linear regression, except with a Pick One dependent variable that has Variable Type of Categorical
	<i>MNL, Rank-Ordered Logit, Latent Class Logit, Random Parameters Logit</i>	<ol style="list-style-type: none"> 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
	<i>Automating large numbers of regressions</i>	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
<i>Shapley regression, Kruskal Driver Analysis, etc.</i>	Automate ► Online Library and search for Driver	

Brand association analysis	<i>Brand Maps</i>	<ol style="list-style-type: none"> 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
	<i>Driver analysis</i>	<ol style="list-style-type: none"> 1. Stack the data 2. Use one of the methods described above for Regression
	<i>Residual analysis</i>	<ol style="list-style-type: none"> 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)














Segmentation	<i>Preparing the data</i>	<p>Create appropriate derived variables (see the earlier section). E.g.,</p> <ul style="list-style-type: none"> • Show rating scales as Top 2 Boxes (i.e., Pick Any) • Show rating scales Number – Multi • Show rating scales as Ranking • Automate > Online Library > Segmentation – Standardize Data by Case • Principal Components Analysis
	<i>Create the segments</i>	<ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> • Different input variables • Different Question Types for the input variables 6. Different number of segments (Create ► Segments ► Number of segments per split ► Manual)
	<i>Profiling the segments</i>	Create > Smart Tables

Max-Diff and Choice Modeling	<i>Importing the experimental design into a project</i>	Automate ► Online Library ► Max-Diff Setup from an Experimental Design , or, Automate ► Online Library ► Choice Modeling
	<i>Viewing statistics</i>	<ol style="list-style-type: none"> 1. Right-click and select Statistics – Cells 2. Select all the cells on the table (except headings) and press α
	<i>Segmentation</i>	Create ► Segments and press OK (see Segmentation)
	<i>Coefficients for each respondent</i>	<ol style="list-style-type: none"> 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
	<i>Profiling the results</i>	Create crosstabs with the <i>Question</i> created when the experimental design was imported (i.e., this is vastly superior to using the individual-level coefficients)
Please note that Q does not currently create experimental designs, but plan to launch this capability in 2015		



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., <i>nominal</i> or <i>ordinal</i> scales).	Are you... <input type="radio"/> Male <input type="radio"/> Female																
 Pick One – Multi	A series of Pick One questions sharing the same scale points.	Please rate your satisfaction with the following banks <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">Low</td> <td style="text-align: center;">Med</td> <td style="text-align: center;">High</td> </tr> <tr> <td>Westpac</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>ANZ</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>St George</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Low	Med	High	Westpac	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ANZ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	St George	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Low	Med	High															
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St George	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
 Number	A numeric variable (i.e., <i>interval</i> or <i>ratio</i> 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? <input type="checkbox"/> Coke <input type="checkbox"/> Pepsi <input type="checkbox"/> Fanta																
 Pick Any – Compact	Same as Pick Any but stored in a more compact format (see the <i>Q Reference Manual</i>).																	
 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? <input type="checkbox"/> Coke <input type="checkbox"/> Pepsi <input type="checkbox"/> Fanta Which of these brands are young? <input type="checkbox"/> Coke <input type="checkbox"/> Pepsi <input type="checkbox"/> Fanta Which of these brands are sexy? <input type="checkbox"/> Coke <input type="checkbox"/> Pepsi <input type="checkbox"/> 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 <i>economy flights</i> did you take on... Qantas ____ United ____ SAS ____ ...and how many <i>business class flights</i> 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? <table border="1" style="margin-left: 40px; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Coke \$2.00 Can</td> <td style="padding: 5px;">Pepsi \$4.20 Bottle</td> <td style="padding: 5px;">Fanta \$3.20 Flask</td> </tr> </table>	Coke \$2.00 Can	Pepsi \$4.20 Bottle	Fanta \$3.20 Flask													
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