CHAPTER 3
# Menus

## A. THE MENUBAR

This version of STATsimple has six menus; the Apple menu (), the File menu, the Edit menu, the Statistics menu, the Format menu and the Special menu.
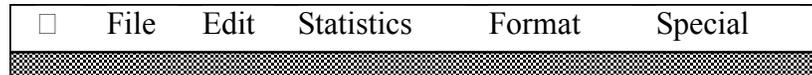
| □ | File | Edit | Statistics | Format | Special |
|---|------|------|------------|--------|---------|

Figure 3.1: STATsimple's menubar

## B. THE APPLE MENU

The Apple menu has the customary "About…" menu item and all your system's available Desk Accessories. In System 7 and later, the contents of the "Apple Menu Items" folder are also displayed as menu items here.
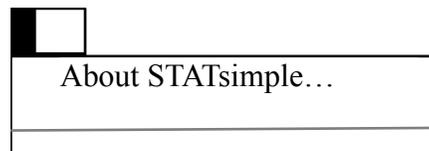
About STATsimple…

Figure 3.2: The Apple menu

About STATsimple…

Keyboard equivalent:  NONE

Mouse equivalent:     NONE

Description:          Presents a dialog box containing STATsimple's version number, user name and serial number. When you have received a serial number for your copy of STATsimple, use this menu item to access the "Register Now…" button.

## C. THE FILE MENU

The items in the File menu are for file operations, printer routines and program termination. The "New sample…", "Open sample…", "Close", "Save" and "Save as…" items are for STATsimple data file operations. The "Import…" item is for reading data from Tab-delimited TEXT files. The "Export as" item is for saving data or statistical results in TEXT format, or for saving statistical graphics in PICT format. The "Page Setup…" and "Print…" items are for printer operations, and the "Quit" item terminates your STATsimple session.

| | |
|---|---|
| New sample | * N |
| Open sample… | * O |
| Close | * W |
| | |
| Import… | * I |
| Export as… | * Y |
| | |
| Save | * S |
| Save as… | |
| | |
| Page Setup… | |
| Print… | * P |
| | |
| Quit | * Q |

Figure 3.3: The File menu

| | |
|---|---|
| New sample | * N |

Keyboard equivalent:  Command–N

Mouse equivalent:      Click the "NEW" icon in the Toolbar Area.

Description:               Makes the first available sample space the current sample and automatically switches to edit mode.

```
┌──────────────────────────────────────────────┐
│  Open sample…                        *  O      │
└──────────────────────────────────────────────┘
```

Keyboard equivalent: Command–O

Mouse equivalent:       Click the "OPEN" icon in the Toolbar Area.

Description:               Presents a Standard Open File dialog box from which to navigate and select the data file to be opened. This dialog box lists only STATsimple data files. To read data from TEXT files, use the File menu's "Import…" item.

                          Data opened with this command is placed into the next available sample space in the Samples Area and flagged as the currently selected sample.

                          This item is disabled when there are no more available sample spaces.

```
┌──────────────────────────────────────────────┐
│  Close                               *  W      │
└──────────────────────────────────────────────┘
```

Keyboard equivalent: Command–W

Mouse equivalent:       Click the "CLOSE" icon in the Toolbar Area.

Description:               Removes the currently selected sample in the Samples Area from STATsimple.

                          If the currently selected sample has been modified from its original state, a dialog box will alert you that the data file was modified. You can then choose to save the changes, leave the file unchanged, or cancel the Close command.

                          This item is disabled when the currently selected sample has no data.

```
┌──────────────────────────────────────────────┐
│  Import…                             *  I      │
└──────────────────────────────────────────────┘
```

Keyboard equivalent: Command–I

Mouse equivalent:       NONE

Description:               This command is used for importing TEXT data into STATsimple. It presents a Standard Open File dialog box from which to navigate and select the TEXT file to be imported. This dialog box lists only TEXT data files. To open data from STATsimple files, use the File menu's "Open sample…" item.

                          Data imported with this command is placed into the next available sample space in the Samples Area and flagged as the currently selected sample. If the imported TEXT file has multiple columns of data in Tab-Delimited format, then those columns will be imported sequentially as separate samples.

                          This item is disabled when there are no more available sample spaces.

| Export as…                                                    * Y |
|---|

Keyboard equivalent: Command–Y

Mouse equivalent:      NONE

Description:              This command is used for exporting the contents of the Viewing Area to a file. It presents a Standard Save File dialog box (Figure 3.4).

Sample data, Descriptive statistical results, t-test results and ANOVA results are saved as TEXT files. Histogram plots, Linear Regression plots and Bonferroni comparisons are saved as PICT files.

This item is disabled when the Viewing Area is void of data or graphics.

Figure 3.4: The Standard Save File dialog box

| Save                                                          * S |
|---|

Keyboard equivalent: Command–S

Mouse equivalent:      NONE

Description:              This command saves the data of the currently selected sample.

If the currently selected sample has not been previously saved as a STATsimple data file, then a "Save as…" command is generated (see below).

This item is disabled when the currently selected sample has no data, or if the currently selected sample's data has not been modified since it was last saved.

### Save as…

Keyboard equivalent: NONE

Mouse equivalent: NONE

Description: This command is used for saving the data of the currently selected sample to a STATsimple data file. It presents a Standard Save File dialog box.

This item is disabled when the currently selected sample has no data.

### Page Setup…

Keyboard equivalent: NONE

Mouse equivalent: NONE

Description: This command is used for setting the Printer output options. A Standard Printer Page Setup dialog box is presented.

### Print…                                    * P

Keyboard equivalent: Command–P

Mouse equivalent: NONE

Description: Prints the contents of the Viewing Area using page margins previously set (or default set) with the "Document…" menu item. A Standard Print dialog box is presented.

### Quit                                       * Q

Keyboard equivalent: Command–Q

Mouse equivalent: Click the Close Box on STATsimple's application window (Figure 3.6).

Description: Terminates your STATsimple session.

STATsimple will notify you of any modified data files before quitting. You can then choose to save the changes, or leave the file unchanged, or cancel the Quit command.

## D. THE EDIT MENU

STATsimple has a Standard Edit Menu that provides basic text editing functions for data entry. In this version of STATsimple, the first menu item, "Can't Undo", is disabled and is for future use. The "Cut", "Copy", "Paste" and "Clear" menu items work whenever data or text is being entered.
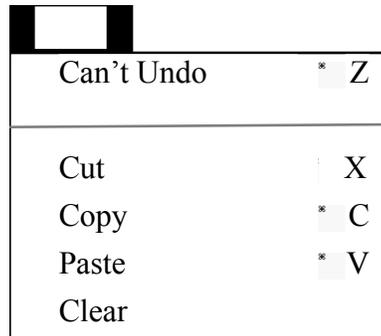
| | |
|---|---|
| Can't Undo | ⁕ Z |
| Cut | X |
| Copy | ⁕ C |
| Paste | ⁕ V |
| Clear | |

Figure 3.5: The Edit menu

| | |
|---|---|
| Can't Undo | ⁕ Z |

Keyboard equivalent: Command–Z

Mouse equivalent:     NONE

Description:          FOR FUTURE USE. This menu item is disabled in this version of STATsimple.

| | |
|---|---|
| Cut | ⁕ X |

Keyboard equivalent: Command–X

Mouse equivalent:     NONE

Description:          Removes currently selected text from an edit field and copies it to the clipboard.

| | |
|---|---|
| Copy | C |

Keyboard equivalent: Command–C

Mouse equivalent:     NONE

Description:          Copies currently selected text from an edit field to the clipboard.

| Paste | * V |
|-------|-----|

Keyboard equivalent: Command–V

Mouse equivalent:       NONE

Description:                   Copies the contents of the clipboard (TEXT only) to the currently active edit field.

| Clear |
|-------|

Keyboard equivalent: NONE

Mouse equivalent:       NONE

Description:                   Removes currently selected text from an edit field.
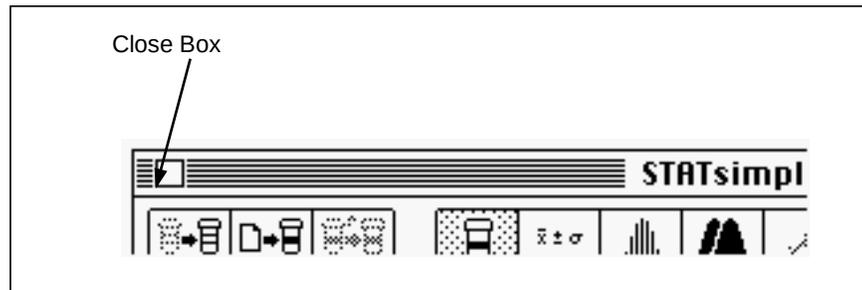


Figure 3.6: Clicking in the window's Close Box will quit STATsimple

**E. THE STATISTICS MENU**

The Statistics menu provides access to the STATsimple's statistical routines. This menu has seven items; i) the Edit Data item allows data entry and data modification in the Viewing Area, ii) the Descriptive item shows some descriptive statistics of the currently selected sample, iii) the Histogram item shows a histogram plot of the currently selected data, iv) the Student's t-test item initialises a two-tailed, unpaired t-test, v) the Linear Regression item initialises a linear regression plot, vi) the Analysis of Variance item initialises a one-way ANOVA, and vii) the Bonferroni t-test item shows a table of comparisons using Bonferroni modified t-tests on the samples entered into the ANOVA.

| | | |
|---|---|---|
| Edit Data | * | E |
| Descriptive | | D |
| Histogram | * | H |
| Student's t-Test | * | T |
| Linear Regression | * | R |
| Analysis of Variance | * | A |
| Bonferroni t-Tests | * | B |

Figure 3.7: The Edit menu

| | | |
|---|---|---|
| Edit Data | * | E |

Keyboard equivalent:  Command–E

Mouse equivalent:    Click the "EDIT" icon in the Toolbar Area.

Description:         Shows the data of the flagged sample in the Viewing Area. New data may be entered or existing data modified.

| Descriptive | ⌘ D |
|---|---|

Keyboard equivalent: Command–D

Mouse equivalent:      Click the "DESC" icon in the Toolbar Area.

Description:           Shows some descriptive statistics of the currently selected sample in the Viewing Area. This version
                       of STATsimple shows the following descriptive statistics:

                       - Mean, Standard Deviation and Standard Error of the Mean
                       - Minimum, Maximum and Median
                       - Sum, Sum Squares and Variance
                       - 90%, 95%, and 99% confidence limits (using the t-distribution)


| Histogram | ⌘ H |
|---|---|

Keyboard equivalent: Command–H

Mouse equivalent:      Click the "HIST" icon in the Toolbar Area.

Description:           Shows a histogram plot of the flagged sample in the Viewing Area. Initially, STATsimple will estimate
                       the lower and upper plotting limits as well as the number of classes. To set your own plotting
                       parameters, double-click anywhere on the plot and you will be presented with a dialog box that allows
                       you to set the Number of Classes, Lower Limit, Upper Limit, and Bar Pattern. A redundant selection
                       of this menu item will cause the histogram plot to revert to its default (estimated) plotting parameters.
                       A redundant selection of this menu item will reset the lower and upper plotting limits to the default.


| Student's t-Test | ⌘ T |
|---|---|

Keyboard equivalent: Command–T

Mouse equivalent:      Click the "T-TEST" icon in the Toolbar Area.

Description:           Initialises a two-tailed, unpaired Student's t-test and shows the results in the Viewing Area. Initially, a
                       blank framework for the t-test results will be shown. To add a sample to the t-test, click on a sample in
                       the Samples Area. After two samples are added, the following results are shown:

                       – degrees of freedom (d.f.), t-value (t) and p-value (p)
                       – t-critical values for p=0.10, p=0.05 and p=0.01
                       – Mean, SEM and number of observations for the first sample
                       – Mean, SEM and number of observations for the second sample

                       A redundant selection of this menu item will clear all samples from this test.

```
┌─────────────────────────────────────────────┐
│  Linear Regression                      *  R  │
└─────────────────────────────────────────────┘
```

Keyboard equivalent: Command–R

Mouse equivalent:      Click the "REG" icon in the Toolbar Area.

Description:           Initialises a linear regression plot in the Viewing Area. Initially, a blank framework for the regression
                       plot will be shown. To add an independent data set (X-data), click on a sample in the Samples Area.
                       After an independent data set has been added, a dependent data set (Y-data) may be added by clicking
                       on a sample in the Samples Area. Once the two data sets are added, the Viewing Area shows the
                       regression plot and equation. A redundant selection of this menu item will clear all samples from this
                       test.

```
┌─────────────────────────────────────────────┐
│  Analysis of Variance                   *  A  │
└─────────────────────────────────────────────┘
```

Keyboard equivalent: Command–A

Mouse equivalent:      Click the "ANOVA" icon in the Toolbar Area.

Description:           Initialises a one-way analysis of variance in the Viewing Area. Initially, a blank framework will be
                       shown. To add a sample to this analysis, click on the sample in the Samples Area. Each time a sample
                       is added, the analysis is recalculated to include the added sample. You may add as many as twenty
                       five samples to this analysis. To remove a sample from the analysis, click on the sample in the
                       Samples Area.

                       Samples added to (or removed from) this analysis are also added to (or removed from) the Bonferroni
                       t-tests. A redundant selection of this menu item will clear all samples from this analysis.

```
┌─────────────────────────────────────────────┐
│  Bonferroni t-Tests                     *  B  │
└─────────────────────────────────────────────┘
```

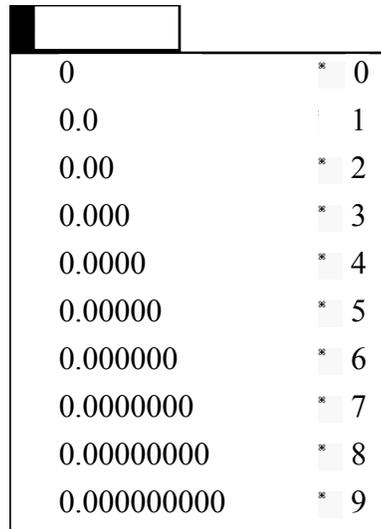Keyboard equivalent: Command–B

Mouse equivalent:      Click the "BON-T" icon in the Toolbar Area.

Description:           Uses Bonferroni modified t-tests for making comparisons among the samples selected for the
                       Analysis of Variance (ANOVA). If no samples were selected for the ANOVA, a blank framework will
                       be shown in the Viewing Area. To add a sample, click on the sample in the Samples Area. Like the
                       ANOVA, each time a sample is added, the analysis is recalculated to include the added sample. As
                       many as twenty five samples may be added. To remove a sample, click on the sample in the Samples
                       Area.

                       The Bonferroni t-tests are linked to the ANOVA. Samples added or removed from these t-tests are
                       also added or removed from the ANOVA. A redundant selection of this menu item will clear all
                       samples from this analysis.

## F. THE FORMAT MENU

The Format menu is used to change the number of decimal places that are displayed in data in the Viewing Area.
Sometimes referred to as the 'precision' of the number, this parameter can be changed from zero to nine decimal places via keyboard short-cuts.

| | | |
|---|---|---|
| 0 | * | 0 |
| 0.0 | | 1 |
| 0.00 | * | 2 |
| 0.000 | * | 3 |
| 0.0000 | * | 4 |
| 0.00000 | * | 5 |
| 0.000000 | * | 6 |
| 0.0000000 | * | 7 |
| 0.00000000 | * | 8 |
| 0.000000000 | * | 9 |

Figure 3.8: The Format menu

Keyboard equivalent:  Command–0, Command–1, Command–2, etc.

Mouse equivalent:    NONE

Description:              Changes the number precision to the selected number of decimal places.

## G. THE SPECIAL MENU

The Special menu has two items. The "Document…" item is used to set the document margins for print-outs and the "Chart…" item is used to set the plotting parameters for histogram and regression plots.
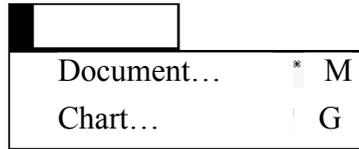
| | |
|---|---|
| Document… | * M |
| Chart… | G |

Figure 3.9: The Special menu


| Document… | * M |
|---|---|

Keyboard equivalent: Command–M

Mouse equivalent:     NONE

Description:          Allows you to change the document margins for print-outs. A dialog box is presented with four changeable parameters; Left, Top, Right and Bottom. The margins are specified in inches.


| Chart… | * G |
|---|---|

Keyboard equivalent: Command–G

Mouse equivalent:     Double-Click on any part of a histogram or regression plot.

Description:          Allows you to change the plot parameters for histograms and linear regressions.

                     When a histogram is in the Viewing Area, a dialog box is presented with four changeable parameters; Number of Classes, Lower Limit, Upper Limit, and Bar Pattern. If you specify a lower limit greater than the minimum data value, or if you specify an upper limit less than the maximum data value, then STATsimple ignores your specification and chooses a limit that ensures all data are visible in the histogram.

                     When a linear regression is in the Viewing Area, a dialog box is presented with six changeable parameters; X-min, X-max, X-increment ($\Delta X$), Y-min, Y-max, and Y-increment ($\Delta Y$).

                     The "Chart…" item is disabled when no histogram or regression plot is present, or when no data is available for the histogram or regression plot.