



# Rectangular raw data into derived dis/similarities

## (... WOMBATS!)

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1. *Is there any way that I can input raw survey data [from an Excel spread-sheet] and then have MDSX convert the raw data into a dissimilarities matrix?*

The WOMBATS utility in MDSX is designed for just this purpose (WOMBATS incidentally means: *Work Out Measures Before Attempting to Scale!*).  
The program:

- Asks you to specify preliminary information about the data, such as missing data codes and level of measurement of each variable and then choose a measure of dis/similarity (as defined in [The User's Guide](#), chapter 2) between the variables you specify. Then it
- Reads your rectangular data matrix (either directly input at the console, or from the Clipboard, or as an existing file)
- Outputs the matrix of measures in a form suitable for input into MDSX, PERMAP or SPSS

If you have data in an EXCEL or similar file, the simplest way is to block up the relevant data (without any labels) and then Edit/Copy it to the Clipboard until WOMBATS asks for the input data. (Alternatively, you can save it as a text file, space delimited (.prn or .txt type) and read it as a file when the Input Wizard needs it)

In setting up the run, use the WOMBATS Wizard, which has contextual help, most of the input set-up is obvious. However...

- the MEASUREMENT LEVEL of each of the variables you will use must be specified. (If you choose an inappropriate measure, the program will give you a warning).

- In the PARAMETERS specification, the only parameter which usually needs attention is ANALYSIS, since this determines the form in which the matrix of measures is output:
  - OUTPUT(1) - lower triangle without diagonal (MDSX and most other programs). This is the default
  - OUTPUT(2) - lower triangle with diagonal. This is useful for PERMAP runs
  - OUTPUT(3) - full symmetric matrix with diagonal, which is what you need for an SPSS (ALSCAL or PROXSCAL) run.
- The MEASURE you choose is specified in the pull-down list on the left-hand side if the variables are dichotomous (D1-D16 are specified in TUG, Table 2.4), otherwise they are chosen from the right-hand pull-down list (these are also specified in chapter 2 of TUG). Once this information is specified, click on Next arrow to input the data file.

Edit/Paste your data from the Clipboard, then press Continue... and the run-script is ready to go.

N.B. In the next release of NewMDSX we shall modify the data input specifications to WOMBATS to allow for direct input (with or without labels) from EXCEL, SPSS

A note of caution: if you are going to use non-metric MDS, avoid any measure which will give negative values (such as the correlation measures. This is why the Euclidean DISTANCE measure in SPSS is so popular ...