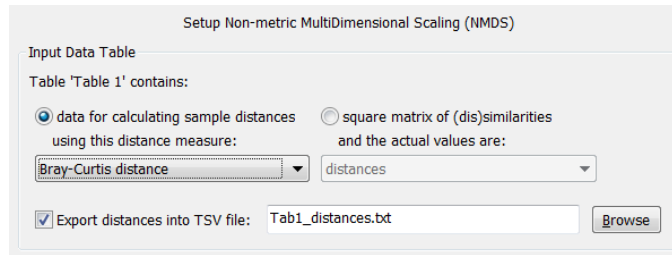


64-bit version, the maximum number is 50,000 cases (but the processing time might represent a more substantial limit).

NMDS inserts a custom page at the beginning of the Analysis Setup Wizard page sequence. The page splits vertically into two regions, the top one is:



The *Input Data Table* area allows you to specify how the matrix of distances will be obtained. The top-most choice is whether the specified input data-table already contains distances (or similarities - the choice at the right side) or whether these are the data to be used for computing the distances (the left-hand choice).

For the former possibility, the matrix of distances can be added to a project as a new data-table, as long as it has the same number of rows as the number of cases (or the number of variables – e.g. species, if the distances represent some kind of dissimilarity among them). Due to the nature of the distance matrix, the number of columns must be the same as the number of rows and the matrix must be symmetrical across the main diagonal. The nature of the values can be specified with the selection box (that will become enabled after you select this type of input): they can already be distances or they might be similarities to be transformed to distances by subtracting from one or by taking the square-root of this 1-complement (this option often leads to distances with metric properties, compared with the basic 1-complement transformation).

If you have chosen to compute the distance matrix, you must choose one of the offered distance measures, briefly described below. Please refer to Legendre & Legendre (2012) for additional details on those coefficients (distance numbers used in that textbook are given in parentheses after the distance name). In the following description, y_{ij} is the value of j -th response variable (typically a response variable in a community) in the i -th case, y_{i+} is the sum of the response variable values in the i -th case, y_{+j} is the sum of j -th response variable values over all cases, y_{++} is the total sum of values over the response data-table, m is the number of response variables, a is the number of response variables with positive values (i.e. typically “species occurring”) in both compared cases, b and c are the number of response variables with positive values (“occurring”), respectively, only in the first or only in the second of the two compared cases, and d is the number of response variables with zero values (“absent”) in both cases. The formulae given below always compare, as an example, the first and second case in the data-table.

Bray-Curtis distance (D_{14})

$$(4.8) \quad D_{12} = \frac{\sum_{j=1}^m |y_{1j} - y_{2j}|}{\sum_{j=1}^m (y_{1j} + y_{2j})}$$

SQRT(Bray-Curtis distance) (D_{14})

This is a square-root transformation of the coefficient defined above.