Combined MDS & 'Fix Collapse'

A further new feature of *n*MDS in PRIMER 7 is the ability to minimise a combination of two stress functions, equally mixed – this has potential application, for example, to combining information on a common set of samples from community matrices (typically using a biological resemblance, such as Bray-Curtis) with that from physical variables (usually requiring Euclidean distance) in a single ordination, a **Combined MDS** plot. A more commonly needed requirement is implemented within the *n*MDS routine: the ability to mix a small amount of a metric solution with the predominantly non-metric one, preserving the flexibility of *n*MDS whilst implementing a (✓Fix Collapse) of the non-metric solution which can occur if a sample, or set of samples, has greater dissimilarity to all others than any dissimilarity within either set. Ranks then carry no information about the relative spacing of the two sets and even a very small amount of metric MDS information is enough to fix this indeterminacy. This will often be a better option than using the **Graph>MDS Subset** routine on a box drawn around the main group of points, excluding the outliers causing the difficulty.