

The new Conefor command line version, compiled in February 2014, includes a number of improvements compared to the previous version. The main improvement in this new Conefor version are (i) the ability to perform the analysis for multiple distance values in the same run (through a single command line), and (ii) that it is available for Linux, Windows and Mac and both for 32 bit and 64 bit systems. There are other small improvements that are not yet here described.

The Conefor command line version can also be used from R by executing Conefor through the shell command. See the attached R file (Conefor\_command\_line\_from\_R.R) for some examples on how to use the Conefor command line from R through the shell command. This R file does not contain a stand-alone code, but rather examples of Command line usage that would typically need to be integrated within larger codes. This file is also provided as a pdf (Conefor\_command\_line\_from\_R.pdf) because the command line examples in it can also be useful for illustrating the use of Conefor command line even if this is done directly from the command prompt and not from R.

Regarding the usage of the new Conefor command line version, it is almost identical to previous versions (see attached manual for the 2013 version). The only important addition to the syntax is the option “-confMultipleValues”. All the rest in the previous 2013 version works exactly the same in the 2014 version (see the manual for the 2013 version for details and instructions).

We have not yet developed an updated version of the manual for this new Conefor command line version (2014), but next we briefly describe how the new option “-confMultipleValues” works. The rest of the functionality and parameters are the same as for the 2013 version (see the manual for that version for details).

#### **-confMultipleValues min max step**

This option allow to perform the calculations for multiple distance values (for the node and connection files and the connectivity indices specified in the same command line). This functionality includes both the case in which only a pair of node and connection files are specified (i.e. without using option -\*) and the case in which multiple pairs of node and connection files are processed at a time by using the option -\*.

In this option, the minimum (*min*) and maximum (*max*) distance values to be calculated need to be specified, as well as the value by which the distance value must be increased (*step*) starting from *min* until *max* is reached. Calculations will be repeated for all distance values *min*, *max* and all the intermediate values between *min* and *max* as given by *step*: *min+step*, *min+2\*step*..., *min+n\*step*, where the last *n* for which calculations are performed is that for which *max* < (*min*+(*n*+1)\**step*). For example, if *min*=200, *max*=550, and *step*=100, calculations will be performed for the distance values 200, 300, 400, 500 and 550.

When the option -confMultipleValues is specified, this automatically ignores the values of *value* (option -confAdj) and *distance* (option -confProb) previously specified in the command line syntax: calculations will be only performed for the distance values corresponding to *min*, *max* and *step* as specified in this -confMultipleValues option. It is however necessary to specify all the values in these other options, including *value* for option -confAdj (if a binary connectivity index is to be calculated) and *distance* for

option `-confProb` (if a probabilistic connectivity index is to be calculated), even if the values of *value* and *distance* are not those to be used for the calculations but those later specified through the option `-confMultipleValues`.

When using the option `-confMultipleValues` a prefix will be added directly to all output files, with such prefix including the distance value used in each of the calculations (this is equivalent to parameters `_b_` and `_p_` in the prefix option as described in the 2013 manual). Such prefix would allow differentiating (and not overwriting) the results for the different distance values as they are produced and saved by Conefor. If in addition the option `-*` is used in combination with `-confMultipleValues`, the resultant prefix will be the concatenation of the prefix already added automatically by option `-*` (corresponding to a part of the name of the node and connection file, as described in the 2013 manual) and the prefix corresponding to the distance value used in each of the calculations of the `-confMultipleValues` option, which will again allow to differentiate (and not overwrite) the results for the multiple input files and distance values. In all these cases, the prefix will be automatically added without need for any additional specification from the user. If in addition some prefix name is added through the prefix option (see manual for version 2013), this prefix name will be added at the start of the name of the output files (being the same for all the files produced from the same command run), followed by the same prefix as specified above for the options `-confMultipleValues` and `-*` (this part of the prefix will change depending on the distance and file processed within the same command line run).