Some notes on the computer program used to compute the k-RF dissimilarity measures for labeled trees

The computer program used to compute pairwise k-RF measures of all labeled (rooted) trees in an input text file, can be found in "k-RFmeasures.py". The code utilizes some functions defined in "functions.py" and has two propositional arguments "inputfile" and "k". By default, the program considers trees as unrooted; however, adding the optional argument "-r" or "–rooted" in the command line, changes the default. Therefore, the command lines "python3 k-RFmeasures.py inputfile k" and "python3 k-RFmeasures.py -r inputfile k" are used to compute pairwise k-RF measures of all labeled trees and all labeled rooted trees, respectively.

As mentioned above, an input file is one of the propositional arguments of the program. To prepare the file, one needs to represent each (rooted) tree by its (directed) edges in separate lines and begin the representation by the phrase "tree (tree name)". The edges need to be written in a special format as shown in the below figure. Moreover, some input file examples are "rootedtrees.txt" and "unrootedtrees.txt", which can be found in the GitHub link.