

This document is an attachment of the paper:

- *F. Carrabs, C. Cerrone, R. Cerulli, B. Golden, An Adaptive Heuristic Approach to Compute Upper and Lower Bounds for The Close-Enough Traveling Salesman Problem*, INFORMS Journal on Computing, 2020.

It contains the files with the solutions found by the algorithm proposed in the paper above on the 62 instances proposed by Mennell W. (2009) (**Heuristics for solving three routing problems: Close-enough traveling salesman problem, close-enough vehicle routing problem, sequence-dependent team orienteering problem**. Ph.D. thesis, The Robert H. Smith School of Business, University of Maryland, College Park.)

We document the format of the instance and solution files. Files can be downloaded from:

<https://github.com/CerroneCarmine/CETSP>

### ***Instance structure***

Each line contains five values, concerning the information about a target point, in the following format:

< x-coordinate > < y-coordinate > < not used value > < radius length > < not used value >

The third and the fifth values of the line are not used in this paper.

### ***Solution file name***

Each solution filename is identified by suffix “.sol” while its name is equal to the associated instance filename except for the instances with different overlap ratio. In this last case, a prefix equal to 002, 01 and 03 is added to the solution filename to report the overlap ratio value equal to 0.02, 0.1 and 0.3, respectively.

### ***Solution file structure***

The first line of the file report the number of turn points composing the tour. In particular:

- the first line contains the following value:

TP : < number of turn points in the tour >

The remaining lines contain the Cartesian coordinates of the turn points in the following format:

- < x-coordinate > < y-coordinate >