

Instruction to temporal compression

(1) Go to EntryTable.sh and set input parameters and output parameters

Input parameters:

nodeFile, edgeFile, geoFile: file of road network.

Output parameters:

edge2entryFile

(2) Go to TCoding.sh and set input parameters and output parameters

Input parameters:

nodeFile, edgeFile, geoFile: file of road network.

entryTable: file from EntryTable.sh's output.

connFile: file of connected and continuous tracks that have been mapped to the road network.

The format is as follows:

```
2 0 5679 1201937768 39.921230 116.511720 249429 -1 -1.000000 -1.000000 254461
-1 -1.000000 -1.000000 256934 -1 -1.000000 -1.000000 256932 -1 -1.000000 -
1.000000 254455 -1 -1.000000 -1.000000 249486 -1 -1.000000 -1.000000 253597 -1
-1.000000 -1.000000 252951 -1 -1.000000 -1.000000 253153 -1 -1.000000 -1.000000
253151 -1 -1.000000 -1.000000 256922 -1 -1.000000 -1.000000 256920 -1 -1.000000
-1.000000 253147 -1 -1.000000 -1.000000 253008 -1 -1.000000 -1.000000 253010 -1
-1.000000 -1.000000 253761 -1 -1.000000 -1.000000 253721 -1 -1.000000 -1.000000
```

Output parameters:

tcodingFile: custom file address of temporal compression

(3) Go to TRatio.sh and set input parameters and output parameters

Input parameters:

formatFile: file that have processed by MapMatch. The format is as follows:

```
2 0 564 1201937768 39.921230 116.511720 249429 1201938368 39.938830 116.511350 249634
1201938968 39.910340 116.516270 164998 1201939568 39.912480 116.471860 143868 1201940168
39.924980 116.472170 221730 1201940768 39.907180 116.471790 141083 1201941368 39.905310
116.456170 143854 1201942824 39.905770 116.471910 142457 1201943424 39.914500 116.506610
169567 1201955434 39.914600 116.496250 142151 1201956033 39.910710 116.509620 165677
```

tcodingFile: file from TCoding.sh's output

Output parameters:

ratioFile: file of temporal compression ratio

(4) Go to Codings.sh and execution code.

Execution environment: Linux using g++ compiler.

Execution command:

Chmod 755 Codings.sh

./Codings.sh

```
wangqi@wangqi-Inspiron-5521: ~/temporal
wangqi@wangqi-Inspiron-5521:~$ cd /home/wangqi/temporal
wangqi@wangqi-Inspiron-5521:~/temporal$ chmod 755 Codings.sh
wangqi@wangqi-Inspiron-5521:~/temporal$ ./Codings.sh
```

Compression result example:

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