IPS Instituto Politécnico de Setúbal
Escola Superior de Tecnologia de Setúbal

Sistemas Operativos

2020/2021

Licenciatura em Engª. Informática

Relatório Técnico TP#1

Turma: SW06
Horário de Laboratório: 4ª feira 13h30
Docente: Aníbal Ponte
Grupo:
Nº180221011, Tiago Farinha
Nº180221015, Francisco Moura

Test Number: 1

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 93763

Best Path: 4 25 13 23 11 48 16 1 5 3 9 27 37 19 6 18 30 22 8 17 12 7 41 47 15 28 31 40 14 34 24 32 29 39 20 44 38 36 43 46 45 35 33 21 2 42 10 26

Best Iteration: 6070490

Best Time: 54 seconds

Test Number: 2

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 93911

Best Path: 22 3 27 31 28 30 36 39 47 32 11 43 6 14 41 15 37 19 18 17 24 34 23 9 12 8 29 25 48 10 38 1 40 33 46 42 2 20 5 21 26 4 35 45 13 7 44 16

Best Iteration: 4693379

Best Time: 42 seconds

Test Number: 3

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 97788

Best Path: 9 30 37 17 12 43 31 13 47 11 18 29 33 23 41 16 28 7 21 25 14 40 39 24 46 5 27 19 44 38 6 36 8 1 15 32 42 45 35 4 10 26 48 22 2 3 34 20

Best Iteration: 11403168

Best Time: 102 seconds

Test Number: 4

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 95725

Best Path: 40 48 47 5 16 31 36 27 35 10 20 39 9 25 34 41 15 44 22 14 21 28 38 3 24 30 37 17 19 18 7 1 33 6 12 32 45 43 11 23 13 26 4 29 42 2 46 8

Best Iteration: 13037880

Best Time: 118 seconds

Test Number: 5

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 92962

Best Path: 39 8 9 46 3 42 41 38 18 30 47 32 22 29 14 13 12 28 19 15 36 1 31 40 37 44 17 27 11 5 10 2 34 4 35 45 48 25 26 24 20 21 23 16 6 43 7 33

Best Iteration: 839858

Best Time: 7 seconds

Test Number: 6

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 94995

Best Path: 42 26 48 5 30 21 20 15 12 28 37 22 1 8 31 19 33 36 7 44 46 17 13 14 41 9 6 38 18 43 27 25 10 39 40 3 2 29 24 45 32 35 4 47 11 16 34 23

Best Iteration: 2314146

Best Time: 21 seconds

Test Number: 7

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 94271

Best Path: 34 42 12 25 18 14 46 15 31 38 26 4 2 48 22 9 3 44 8 27 28 19 7 36 20 43 6 30 16 13 23 40 29 24 45 35 10 5 21 32 33 1 47 39 11 17 37 41

Best Iteration: 5273204

Best Time: 48 seconds

Test Number: 8

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 95576

Best Path: 2 16 15 9 1 45 26 35 24 40 13 36 33 28 37 32 5 29 10 4 42 39 21 7 38 11 44 46 18 8 30 6 27 17 31 22 12 43 19 48 47 25 34 41 14 23 3 20

Best Iteration: 10233102

Best Time: 87 seconds

Test Number: 9

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 94536

Best Path: 13 12 48 1 15 21 22 25 3 41 8 27 37 30 19 7 34 11 31 46 29 26 35 32 42 5 14 16 40 38 39 47 28 2 43 44 9 17 20 18 36 33 23 6 4 24 10 45

Best Iteration: 2340858

Best Time: 22 seconds

Test Number: 10

Test Name: att48.txt

Number of cities: 48

Number of processes: 10

Best Distance: 93043

Best Path: 47 23 21 5 29 41 16 40 33 44 17 8 32 26 48 30 6 34 14 11 12 31 15 25 9 1 38 36 43 37 27 19 28 7 3 10 42 4 45 35 24 22 13 39 18 20 2 46

Best Iteration: 7076136

Best Time: 63 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: att48.txt

Total Execution Time: 1200 seconds

Number of processes: 10

Best Distance: 92962

Best Path: 25 46 39 48 29 24 14 32 28 19 12 11 13 9 41 33 22 40 16 1 36 18 45 35 6 17 43 31 44 15 23 8 27 30 7 20 21 47 38 37 3 34 10 42 5 2 26 4

Best Iteration: 839858

Best Time: 7 seconds

Average Best Time: 56 seconds

Average Best Iteration: 6328222

Total Best Times: 1

Test Number: 1

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3409

Best Path: 11 8 13 7 6 12 5 4 14 3 2 1 9 10

Best Iteration: 2273700

Best Time: 18 seconds

Test Number: 2

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3483

Best Path: 2 14 3 12 6 4 5 7 13 11 9 10 8 1

Best Iteration: 499831

Best Time: 3 seconds

Test Number: 3

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3495

Best Path: 14 4 1 2 9 11 10 13 7 12 6 5 8 3

Best Iteration: 3363405

Best Time: 26 seconds

Test Number: 4

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3436

Best Path: 9 11 4 2 14 3 8 5 6 12 7 13 1 10

Best Iteration: 3719136

Best Time: 27 seconds

Test Number: 5

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3394

Best Path: 5 12 6 7 13 8 1 11 9 10 2 14 3 4

Best Iteration: 460889

Best Time: 3 seconds

Test Number: 6

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3404

Best Path: 11 9 10 13 8 7 6 12 5 4 3 14 2 1

Best Iteration: 2453987

Best Time: 21 seconds

Test Number: 7

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3408

Best Path: 1 2 8 12 3 4 5 6 14 7 13 11 9 10

Best Iteration: 3196513

Best Time: 24 seconds

Test Number: 8

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3394

Best Path: 4 5 12 6 2 13 8 1 11 9 10 7 14 3

Best Iteration: 5746886

Best Time: 41 seconds

Test Number: 9

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3460

Best Path: 10 11 9 2 14 3 4 5 6 13 7 12 8 1

Best Iteration: 3412756

Best Time: 27 seconds

Test Number: 10

Test Name: burma14.txt

Number of cities: 14

Number of processes: 10

Best Distance: 3504

Best Path: 9 10 6 14 3 4 5 8 12 7 13 2 1 11

Best Iteration: 7292201

Best Time: 51 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: burma14.txt

Total Execution Time: 600 seconds

Number of processes: 10

Best Distance: 3394

Best Path: 5 12 6 7 11 8 1 13 9 10 2 14 3 4

Best Iteration: 460889

Best Time: 3 seconds

Average Best Time: 24 seconds

Average Best Iteration: 3241930

Total Best Times: 2

Test Number: 1

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1890

Best Path: 9 29 3 5 26 27 31 25 33 40 39 38 34 35 16 19 30 6 7 8 28 4 13 24 10 1 42 36 41 37 2 17 23 11 12 22 14 18 15 20 32 21

Best Iteration: 3923234

Best Time: 40 seconds

Test Number: 2

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1898

Best Path: 39 28 42 35 36 40 37 2 4 32 34 33 31 9 26 41 21 29 7 38 30 24 12 3 1 17 13 14 20 18 19 11 23 10 8 27 25 6 5 16 15 22

Best Iteration: 3850820

Best Time: 37 seconds

Test Number: 3

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1918

Best Path: 31 19 21 8 9 14 15 18 13 11 20 10 25 22 16 35 29 28 17 23 5 1 42 3 7 32 33 38 37 30 26 34 40 36 39 2 41 6 24 4 27 12

Best Iteration: 1141731

Best Time: 11 seconds

Test Number: 4

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1855

Best Path: 15 18 28 27 24 17 13 16 14 6 33 40 5 42 41 1 39 2 10 26 19 12 9 8 29 20 21 32 25 11 38 37 35 3 7 30 4 22 31 34 36 23

Best Iteration: 7294011

Best Time: 72 seconds

Test Number: 5

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1907

Best Path: 22 29 32 3 28 31 33 38 37 2 41 42 40 6 18 16 20 19 23 12 39 9 34 4 1 36 5 14 15 7 25 10 26 8 24 17 11 27 35 30 21 13

Best Iteration: 7606406

Best Time: 75 seconds

Test Number: 6

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1837

Best Path: 3 39 28 40 13 14 17 18 20 23 11 6 19 15 16 12 5 24 21 26 8 34 37 29 22 38 41 1 42 2 31 25 10 4 27 7 32 30 9 33 36 35

Best Iteration: 6010560

Best Time: 61 seconds

Test Number: 7

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1868

Best Path: 28 20 31 35 29 25 26 5 41 6 39 32 8 40 38 34 2 42 10 15 19 33 30 14 18 21 16 13 17 22 24 23 12 11 4 1 37 7 3 9 27 36

Best Iteration: 7234572

Best Time: 73 seconds

Test Number: 8

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1933

Best Path: 5 41 4 40 34 13 21 17 19 23 30 38 6 42 7 35 26 16 18 14 15 28 27 37 31 24 25 8 36 3 10 9 39 2 1 33 32 29 22 20 11 12

Best Iteration: 1507693

Best Time: 14 seconds

Test Number: 9

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1916

Best Path: 27 9 2 42 30 6 37 26 28 7 23 15 14 31 13 17 3 35 10 25 22 33 32 24 4 41 36 38 12 34 40 39 1 8 11 19 18 20 21 29 5 16

Best Iteration: 4855914

Best Time: 45 seconds

Test Number: 10

Test Name: dantzig42.txt

Number of cities: 42

Number of processes: 10

Best Distance: 1830

Best Path: 31 28 15 16 21 12 17 20 25 35 37 34 2 1 41 40 9 8 22 19 14 13 23 18 33 3 38 42 26 27 6 7 30 29 24 11 10 39 5 4 36 32

Best Iteration: 2795514

Best Time: 25 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: dantzig42.txt

Total Execution Time: 1200 seconds

Number of processes: 10

Best Distance: 1830

Best Path: 31 25 15 16 21 12 17 20 28 35 37 34 2 3 41 40 9 8 22 19 14 13 23 18 33 26 38 42 1 27 6 7 30 29 24 11 10 39 5 4 36 32

Best Iteration: 2795514

Best Time: 25 seconds

Average Best Time: 45 seconds

Average Best Iteration: 4622045

Total Best Times: 1

Test Number: 1

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 3 1 4 2

Best Iteration: 2

Best Time: 0 seconds

Test Number: 2

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 2 3 4 1

Best Iteration: 3

Best Time: 0 seconds

Test Number: 3

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 4 2 1 3

Best Iteration: 14

Best Time: 0 seconds

Test Number: 4

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 3 4 2 1

Best Iteration: 1

Best Time: 0 seconds

Test Number: 5

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 2 1 3 4

Best Iteration: 1

Best Time: 0 seconds

Test Number: 6

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 4 3 1 2

Best Iteration: 3

Best Time: 0 seconds

Test Number: 7

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 4 2 1 3

Best Iteration: 1

Best Time: 0 seconds

Test Number: 8

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 1 2 3 4

Best Iteration: 5

Best Time: 0 seconds

Test Number: 9

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 1 2 3 4

Best Iteration: 1

Best Time: 0 seconds

Test Number: 10

Test Name: ex4.txt

Number of cities: 4

Number of processes: 10

Best Distance: 28

Best Path: 1 2 4 3

Best Iteration: 6

Best Time: 0 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: ex4.txt

Total Execution Time: 50 seconds

Number of processes: 10

Best Distance: 28

Best Path: 3 1 4 2

Best Iteration: 2

Best Time: 0 seconds

Average Best Time: 0 seconds

Average Best Iteration: 3

Total Best Times: 10

Test Number: 1

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 4 1 3 2 5

Best Iteration: 7

Best Time: 0 seconds

Test Number: 2

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 3 2 4 1 5

Best Iteration: 2

Best Time: 0 seconds

Test Number: 3

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 2 4 5 1 3

Best Iteration: 25

Best Time: 0 seconds

Test Number: 4

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 2 1 3 4 5

Best Iteration: 34

Best Time: 0 seconds

Test Number: 5

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 2 1 5 3 4

Best Iteration: 1

Best Time: 0 seconds

Test Number: 6

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 2 4 3 1 5

Best Iteration: 6

Best Time: 0 seconds

Test Number: 7

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 5 2 3 4 1

Best Iteration: 45

Best Time: 0 seconds

Test Number: 8

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 1 2 3 5 4

Best Iteration: 23

Best Time: 0 seconds

Test Number: 9

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 4 5 2 1 3

Best Iteration: 40

Best Time: 0 seconds

Test Number: 10

Test Name: ex5.txt

Number of cities: 5

Number of processes: 10

Best Distance: 21

Best Path: 1 3 5 4 2

Best Iteration: 22

Best Time: 0 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: ex5.txt

Total Execution Time: 50 seconds

Number of processes: 10

Best Distance: 21

Best Path: 3 4 2 1 5

Best Iteration: 7

Best Time: 0 seconds

Average Best Time: 0 seconds

Average Best Iteration: 20

Total Best Times: 10

Test Number: 1

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 3 2 6 5 1 4

Best Iteration: 5

Best Time: 0 seconds

Test Number: 2

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 5 2 4 1 3 6

Best Iteration: 1

Best Time: 0 seconds

Test Number: 3

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 1 2 3 4 5 6

Best Iteration: 132

Best Time: 0 seconds

Test Number: 4

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 5 4 6 3 2 1

Best Iteration: 7

Best Time: 0 seconds

Test Number: 5

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 4 2 1 5 6 3

Best Iteration: 132

Best Time: 0 seconds

Test Number: 6

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 1 6 5 2 3 4

Best Iteration: 125

Best Time: 0 seconds

Test Number: 7

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 6 2 4 3 5 1

Best Iteration: 164

Best Time: 0 seconds

Test Number: 8

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 2 4 3 1 5 6

Best Iteration: 27

Best Time: 0 seconds

Test Number: 9

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 2 6 3 5 1 4

Best Iteration: 19

Best Time: 0 seconds

Test Number: 10

Test Name: ex6.txt

Number of cities: 6

Number of processes: 10

Best Distance: 23

Best Path: 6 5 2 1 4 3

Best Iteration: 63

Best Time: 0 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: ex6.txt

Total Execution Time: 50 seconds

Number of processes: 10

Best Distance: 23

Best Path: 1 6 3 4 2 5

Best Iteration: 5

Best Time: 0 seconds

Average Best Time: 0 seconds

Average Best Iteration: 67

Total Best Times: 10

Test Number: 1

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3181

Best Path: 9 11 6 2 3 4 12 1 5 7 13 8 10

Best Iteration: 334456

Best Time: 2 seconds

Test Number: 2

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3194

Best Path: 6 1 2 3 4 5 12 8 7 13 11 9 10

Best Iteration: 1221137

Best Time: 9 seconds

Test Number: 3

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3216

Best Path: 3 5 4 12 2 8 11 9 10 1 13 7 6

Best Iteration: 1252490

Best Time: 8 seconds

Test Number: 4

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3194

Best Path: 3 4 5 12 6 7 9 8 11 10 1 13 2

Best Iteration: 1642132

Best Time: 12 seconds

Test Number: 5

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3181

Best Path: 11 9 1 7 13 12 6 5 4 3 2 8 10

Best Iteration: 346187

Best Time: 2 seconds

Test Number: 6

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3181

Best Path: 8 2 1 10 9 11 12 4 5 6 3 7 13

Best Iteration: 267094

Best Time: 2 seconds

Test Number: 7

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3194

Best Path: 11 9 10 8 2 7 12 6 5 4 3 13 1

Best Iteration: 1080588

Best Time: 8 seconds

Test Number: 8

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3217

Best Path: 5 4 3 2 1 8 12 10 11 13 7 6 9

Best Iteration: 472308

Best Time: 4 seconds

Test Number: 9

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3194

Best Path: 3 2 1 8 10 11 9 13 7 6 12 5 4

Best Iteration: 691555

Best Time: 5 seconds

Test Number: 10

Test Name: ex13.txt

Number of cities: 13

Number of processes: 10

Best Distance: 3251

Best Path: 1 12 7 13 6 5 4 3 2 10 9 11 8

Best Iteration: 1582360

Best Time: 12 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: ex13.txt

Total Execution Time: 150 seconds

Number of processes: 10

Best Distance: 3181

Best Path: 5 13 3 2 1 10 9 11 8 4 7 6 12

Best Iteration: 334456

Best Time: 2 seconds

Average Best Time: 6 seconds

Average Best Iteration: 889030

Total Best Times: 3

Test Number: 1

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1501

Best Path: 6 20 4 5 15 12 14 10 7 8 9 3 1 25 23 24 26 18 19 2 11 21 13 22 17 16

Best Iteration: 4713846

Best Time: 45 seconds

Test Number: 2

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1506

Best Path: 3 15 17 12 9 6 8 7 5 16 2 18 26 21 25 22 23 24 1 13 10 4 19 20 11 14

Best Iteration: 1097981

Best Time: 9 seconds

Test Number: 3

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1508

Best Path: 6 8 16 15 10 19 20 21 18 22 17 26 25 24 23 1 9 7 13 11 12 2 5 4 3 14

Best Iteration: 2932003

Best Time: 26 seconds

Test Number: 4

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1553

Best Path: 18 20 13 6 14 15 5 4 16 24 25 23 22 26 17 21 11 7 1 2 3 12 10 9 8 19

Best Iteration: 2464666

Best Time: 20 seconds

Test Number: 5

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1520

Best Path: 2 1 13 6 4 7 16 3 5 20 26 21 8 9 10 18 22 23 24 25 17 19 15 14 12 11

Best Iteration: 6854668

Best Time: 59 seconds

Test Number: 6

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1498

Best Path: 9 10 14 3 4 7 12 18 15 13 8 20 19 11 17 16 22 21 26 25 24 23 2 1 5 6

Best Iteration: 5669815

Best Time: 51 seconds

Test Number: 7

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1535

Best Path: 18 16 9 19 7 4 5 1 2 21 15 13 12 25 22 23 24 26 17 3 10 8 6 11 14 20

Best Iteration: 3300841

Best Time: 30 seconds

Test Number: 8

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1606

Best Path: 25 23 24 22 20 19 26 21 17 9 5 4 3 2 16 15 1 11 18 8 14 6 10 12 13 7

Best Iteration: 4337829

Best Time: 39 seconds

Test Number: 9

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1551

Best Path: 24 25 26 19 16 2 6 4 5 22 13 1 11 15 12 7 14 10 3 9 17 20 18 8 21 23

Best Iteration: 684942

Best Time: 6 seconds

Test Number: 10

Test Name: fri26.txt

Number of cities: 26

Number of processes: 10

Best Distance: 1568

Best Path: 7 13 12 2 1 5 9 16 15 17 14 25 23 11 22 26 18 19 20 21 24 10 8 3 4 6

Best Iteration: 4925136

Best Time: 47 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: fri26.txt

Total Execution Time: 600 seconds

Number of processes: 10

Best Distance: 1498

Best Path: 9 10 14 3 4 7 12 18 15 13 8 20 19 11 17 16 22 21 26 25 24 23 2 1 5 6

Best Iteration: 5669815

Best Time: 51 seconds

Average Best Time: 33 seconds

Average Best Iteration: 3698172

Total Best Times: 1

Test Number: 1

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2230

Best Path: 1 16 4 9 12 13 6 7 8 14 15 10 2 5 11 3 17

Best Iteration: 2488186

Best Time: 23 seconds

Test Number: 2

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2314

Best Path: 9 8 17 13 4 14 3 11 5 7 10 15 6 2 1 16 12

Best Iteration: 252976

Best Time: 2 seconds

Test Number: 3

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2478

Best Path: 15 14 7 8 17 6 4 1 13 9 12 3 16 11 10 2 5

Best Iteration: 3070538

Best Time: 25 seconds

Test Number: 4

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2319

Best Path: 9 11 5 2 10 15 12 14 4 13 17 6 7 8 1 16 3

Best Iteration: 2016256

Best Time: 17 seconds

Test Number: 5

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2357

Best Path: 1 7 17 5 12 10 11 3 15 14 8 2 16 9 6 13 4

Best Iteration: 3270676

Best Time: 28 seconds

Test Number: 6

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2457

Best Path: 3 8 7 6 17 14 13 4 1 16 9 12 5 2 10 11 15

Best Iteration: 2235426

Best Time: 20 seconds

Test Number: 7

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2401

Best Path: 9 12 16 4 7 8 1 13 14 3 5 2 10 11 15 17 6

Best Iteration: 2636490

Best Time: 22 seconds

Test Number: 8

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2391

Best Path: 7 15 6 8 1 13 11 16 12 9 5 2 10 4 3 14 17

Best Iteration: 2493148

Best Time: 19 seconds

Test Number: 9

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2366

Best Path: 5 3 15 14 17 8 16 6 13 7 1 4 12 9 11 10 2

Best Iteration: 1348243

Best Time: 13 seconds

Test Number: 10

Test Name: gr17.txt

Number of cities: 17

Number of processes: 10

Best Distance: 2414

Best Path: 1 4 16 3 9 13 17 6 14 8 12 11 5 2 10 15 7

Best Iteration: 2475834

Best Time: 20 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: gr17.txt

Total Execution Time: 300 seconds

Number of processes: 10

Best Distance: 2230

Best Path: 1 16 4 9 12 13 6 7 8 14 15 10 2 5 11 3 17

Best Iteration: 2488186

Best Time: 23 seconds

Average Best Time: 18 seconds

Average Best Iteration: 2228777

Total Best Times: 1

Test Number: 1

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 348

Best Path: 3 5 7 9 15 13 2 1 11 4 6 14 8 10 12

Best Iteration: 659002

Best Time: 6 seconds

Test Number: 2

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 303

Best Path: 4 6 8 10 14 12 3 7 9 13 15 2 5 1 11

Best Iteration: 2684327

Best Time: 24 seconds

Test Number: 3

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 345

Best Path: 13 1 7 4 6 14 8 2 10 12 3 11 5 9 15

Best Iteration: 755020

Best Time: 7 seconds

Test Number: 4

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 327

Best Path: 15 5 9 13 10 7 2 12 14 8 6 4 11 1 3

Best Iteration: 209300

Best Time: 1 seconds

Test Number: 5

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 347

Best Path: 15 9 5 7 3 14 12 10 2 13 6 4 11 8 1

Best Iteration: 1086757

Best Time: 9 seconds

Test Number: 6

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 353

Best Path: 4 6 2 15 5 7 3 12 14 10 8 9 13 1 11

Best Iteration: 1579274

Best Time: 13 seconds

Test Number: 7

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 350

Best Path: 10 9 15 5 8 3 12 14 2 13 1 11 6 4 7

Best Iteration: 327219

Best Time: 3 seconds

Test Number: 8

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 339

Best Path: 6 14 10 8 12 3 7 5 9 15 1 2 13 11 4

Best Iteration: 2331023

Best Time: 18 seconds

Test Number: 9

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 351

Best Path: 4 6 14 12 8 3 7 5 15 9 1 13 2 10 11

Best Iteration: 753382

Best Time: 6 seconds

Test Number: 10

Test Name: lau15.txt

Number of cities: 15

Number of processes: 10

Best Distance: 354

Best Path: 12 3 7 10 5 15 9 13 14 1 11 4 6 8 2

Best Iteration: 11276

Best Time: 0 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: lau15.txt

Total Execution Time: 300 seconds

Number of processes: 10

Best Distance: 303

Best Path: 4 6 8 10 14 12 3 7 9 13 15 2 5 1 11

Best Iteration: 2684327

Best Time: 24 seconds

Average Best Time: 8 seconds

Average Best Iteration: 1039658

Total Best Times: 1

Test Number: 1

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 345

Best Path: 4 3 12 10 14 7 6 5 9 15 8 2 13 1 11

Best Iteration: 1938057

Best Time: 16 seconds

Test Number: 2

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 329

Best Path: 11 4 6 8 14 7 3 10 12 5 9 15 13 2 1

Best Iteration: 790173

Best Time: 7 seconds

Test Number: 3

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 347

Best Path: 11 6 14 8 3 7 10 4 12 9 15 5 2 13 1

Best Iteration: 1768748

Best Time: 16 seconds

Test Number: 4

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 345

Best Path: 9 2 1 13 10 8 11 4 6 14 5 3 7 12 15

Best Iteration: 2958929

Best Time: 24 seconds

Test Number: 5

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 344

Best Path: 10 6 14 12 3 7 5 15 9 2 4 13 11 1 8

Best Iteration: 1044893

Best Time: 8 seconds

Test Number: 6

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 347

Best Path: 15 5 7 14 10 12 9 3 8 6 4 11 1 13 2

Best Iteration: 2725854

Best Time: 21 seconds

Test Number: 7

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 333

Best Path: 5 9 15 2 4 11 1 13 6 8 10 3 14 12 7

Best Iteration: 1313331

Best Time: 11 seconds

Test Number: 8

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 349

Best Path: 6 11 1 9 13 15 2 5 7 3 14 12 10 8 4

Best Iteration: 1232411

Best Time: 11 seconds

Test Number: 9

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 344

Best Path: 8 10 14 12 3 6 5 15 9 13 2 11 1 4 7

Best Iteration: 2741992

Best Time: 24 seconds

Test Number: 10

Test Name: p01.txt

Number of cities: 15

Number of processes: 10

Best Distance: 350

Best Path: 2 15 9 13 1 11 4 6 14 8 10 12 3 5 7

Best Iteration: 578984

Best Time: 5 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: p01.txt

Total Execution Time: 300 seconds

Number of processes: 10

Best Distance: 329

Best Path: 11 4 6 8 14 7 3 10 12 5 9 15 13 2 1

Best Iteration: 790173

Best Time: 7 seconds

Average Best Time: 14 seconds

Average Best Iteration: 1709337

Total Best Times: 1

Test Number: 1

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 5 11 4 7 8 6 3 10 2 9 1

Best Iteration: 629113

Best Time: 5 seconds

Test Number: 2

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 10 2 9 1 7 11 8 5 4 6 3

Best Iteration: 505681

Best Time: 4 seconds

Test Number: 3

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 11 5 1 4 2 10 3 6 9 7 8

Best Iteration: 499125

Best Time: 3 seconds

Test Number: 4

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 5 11 9 2 10 3 6 4 7 8 1

Best Iteration: 108880

Best Time: 0 seconds

Test Number: 5

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 8 7 4 11 3 10 2 9 1 5 6

Best Iteration: 31884

Best Time: 0 seconds

Test Number: 6

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 7 2 8 1 5 11 3 10 9 6 4

Best Iteration: 69718

Best Time: 0 seconds

Test Number: 7

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 3 6 4 2 8 11 5 1 9 7 10

Best Iteration: 10923

Best Time: 0 seconds

Test Number: 8

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 11 4 7 8 6 5 1 9 2 10 3

Best Iteration: 75561

Best Time: 0 seconds

Test Number: 9

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 10 3 5 4 7 8 11 6 1 9 2

Best Iteration: 44305

Best Time: 0 seconds

Test Number: 10

Test Name: sp11.txt

Number of cities: 11

Number of processes: 10

Best Distance: 133

Best Path: 3 2 8 11 7 1 9 6 4 5 10

Best Iteration: 88291

Best Time: 0 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: sp11.txt

Total Execution Time: 150 seconds

Number of processes: 10

Best Distance: 133

Best Path: 5 11 4 7 8 6 3 10 2 9 1

Best Iteration: 629113

Best Time: 5 seconds

Average Best Time: 1 seconds

Average Best Iteration: 206348

Total Best Times: 10

Test Number: 1

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1733

Best Path: 10 11 4 9 8 3 5 12 7 6 2 1

Best Iteration: 1043980

Best Time: 9 seconds

Test Number: 2

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1733

Best Path: 7 9 2 4 12 8 6 1 10 3 5 11

Best Iteration: 1593394

Best Time: 12 seconds

Test Number: 3

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1771

Best Path: 3 10 1 5 11 9 7 2 4 12 8 6

Best Iteration: 170977

Best Time: 1 seconds

Test Number: 4

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1733

Best Path: 1 6 8 12 4 2 9 7 11 5 3 10

Best Iteration: 88537

Best Time: 0 seconds

Test Number: 5

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1798

Best Path: 4 1 3 5 11 7 9 2 10 12 8 6

Best Iteration: 1501077

Best Time: 11 seconds

Test Number: 6

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1756

Best Path: 9 4 1 8 6 2 12 10 3 5 11 7

Best Iteration: 272412

Best Time: 2 seconds

Test Number: 7

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1739

Best Path: 7 9 4 5 8 6 10 1 3 12 11 2

Best Iteration: 1424187

Best Time: 12 seconds

Test Number: 8

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1733

Best Path: 10 6 8 12 2 4 9 7 11 5 3 1

Best Iteration: 208978

Best Time: 1 seconds

Test Number: 9

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1733

Best Path: 9 7 11 4 3 10 1 6 8 12 5 2

Best Iteration: 1007301

Best Time: 8 seconds

Test Number: 10

Test Name: uk12.txt

Number of cities: 12

Number of processes: 10

Best Distance: 1733

Best Path: 5 11 7 9 2 12 4 8 6 1 10 3

Best Iteration: 1538163

Best Time: 13 seconds

---------- STATISTICS ----------

Total Tests: 10

Test Name: uk12.txt

Total Execution Time: 150 seconds

Number of processes: 10

Best Distance: 1733

Best Path: 8 6 2 10 3 5 11 7 9 1 4 12

Best Iteration: 1043980

Best Time: 9 seconds

Average Best Time: 6 seconds

Average Best Iteration: 884900

Total Best Times: 6