Installation Instructions

1. build libMTPFSolver.so
>> make

2. run test script
>> make test

API Reference

MTPFSolver(int R, int C)

Initialize the solver with RxC routing grids.
int R: number of rows.
int C: number of columns.

void setTimeLimit(double timeLimit)

Set the total time limit for the solver to run.
double timeLimit: time limit (s).

void setGapLimit(double gap)

Set the gap limit for the solver.
double gap: gap limit (0.0~1.0)

bool addObstacle(int x, int y)

Add an obstacle at (x, y). Returns false on failure.
int x: row number.
int y: column number.

bool delObstacle(int x, int y)

Remove the obstacle at (x, y). Returns false on failure.
int x: row number.
int y: column number.

bool addTerminal(int x, int y, int t)

Add a terminal at (x, y) of type t. Returns false on failure.
int x: row number.
int y: column number.
int t: Type of the terminal.

bool delTerminal(int x, int y)

Remove the terminal at (x, y). Returns false on failure.
int x: row number.
int y: column number.

bool solve()

Solve the problem and save the result. Returns false on failure.

void clear()
Clear the result.

const std::vector<std::vector<int> >& getResult()
Get the result. Will run solve automatically if there is no result.

const std::vector<std::vector<int> >& getItems()
Get the RxC routing grids with terminals and obstacles.