<untitled> #346

MODELS
Model-01   Flashlight
Model-02   Radio
Model-03   Toy Car
Model-04   Ball Point Pen

If model-01 is disassemble in line -- 1; otherwise -- 0 = 1
If model-02 is disassemble in line -- 1; otherwise -- 0 = 1
If model-03 is disassemble in line -- 1; otherwise -- 0 = 1
If model-04 is disassemble in line -- 1; otherwise -- 0 = 0

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Warning: your license will expire in 4 days
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Academic license - for non-commercial use only
Gurobi Optimizer version 9.0.3 build v9.0.3rc0 (win64)
Optimize a model with 83979 rows, 6546 columns and 419898 nonzeros
Model fingerprint: 0x2170b7d6
Variable types: 137 continuous, 6409 integer (6409 binary)
Coefficient statistics:
  Matrix range     [1e+00, 1e+05]
  Objective range  [1e-06, 1e+00]
  Bounds range     [1e+00, 1e+00]
  RHS range        [1e+00, 3e+05]
Presolve removed 67070 rows and 2638 columns
Presolve time: 2.23s
Presolved: 16909 rows, 3908 columns, 83387 nonzeros
Variable types: 115 continuous, 3793 integer (3793 binary)
Found heuristic solution: objective 3.0103500

Root relaxation: objective 2.010655e+00, 269 iterations, 0.04 seconds

    Nodes    |    Current Node    |     Objective Bounds      |     Work
 Expl Unexpl |  Obj  Depth IntInf | Incumbent    BestBd   Gap | It/Node Time

     0     0    3.00933    0   16    3.01035    3.00933  0.03%     -    2s
     0     0    3.00933    0   10    3.01035    3.00933  0.03%     -    2s
     0     0    3.00934    0   23    3.01035    3.00934  0.03%     -    4s
     0     0    3.00937    0   34    3.01035    3.00937  0.03%     -    4s
H    0     0                       3.0103300    3.00937  0.03%     -    4s
     0     0    3.00937    0   33    3.01033    3.00937  0.03%     -    4s
     0     0     cutoff    0         3.01033    3.01033  0.00%     -    4s

Cutting planes:
  Gomory: 2
  Cover: 4
  Implied bound: 2
  Clique: 4
  MIR: 14
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  StrongCG: 2
  Flow cover: 14
  GUB cover: 1
  RLT: 3
  Relax-and-lift: 4

Explored 1 nodes (1236 simplex iterations) in 4.78 seconds
Thread count was 4 (of 4 available processors)

Solution count 3: 3.01033 3.01035 3.01035

Optimal solution found (tolerance 1.00e-04)
Best objective 3.010330000000e+00, best bound 3.010330000000e+00, gap 0.0000%
<gurobi.Model MIP instance MILP Model: 83979 constrs, 6546 vars, No parameter changes>

Solution Results

Time = 11.550437688827515 second
Total number of stations opened from both sides   :   2.0
Total number of stations opened from only one side   :   1.0
Total number of stations opened   :   5.0
MODEL- m3
(m, i)   (j,s)   Processing Time   Starting Time   Ending Time
('m3', 1) :   [(1, 1)]   37   0.0   37.0
('m3', 4) :   [(3, 1)]   3   25.0   28.0
('m3', 13) :   [(3, 1)]   2   28.0   30.0
('m3', 33) :   [(3, 1)]   10   30.0   40.0
('m3', 49) :   [(2, 2)]   34   6.0   40.0
('m3', 74) :   [(3, 1)]   11   0.0   11.0
('m3', 96) :   [(3, 2)]   29   11.0   40.0
('m3', 97) :   [(3, 1)]   14   11.0   25.0
MODEL- m1
(m, i)   (j,s)   Processing Time   Starting Time   Ending Time
('m1', 1) :   [(1, 1)]   30   10.0   40.0
('m1', 3) :   [(2, 2)]   12   25.0   37.0
('m1', 6) :   [(3, 1)]   21   0.0   21.0
('m1', 7) :   [(3, 2)]   6   34.0   40.0
('m1', 9) :   [(2, 2)]   25   0.0   25.0
('m1', 10) :   [(3, 2)]   10   0.0   10.0
MODEL- m2
(m, i)   (j,s)   Processing Time   Starting Time   Ending Time
('m2', 1) :   [(1, 2)]   11   0.0   11.0
('m2', 3) :   [(1, 1)]   20   11.0   31.0
('m2', 4) :   [(2, 2)]   14   0.0   14.0
('m2', 9) :   [(3, 1)]   6   34.0   40.0
('m2', 15) :   [(3, 1)]   5   4.000000000000085
9.000000000000085
('m2', 17) :   [(3, 2)]   6   24.000000000000085
30.000000000000085
('m2', 22) :   [(3, 1)]   15   9.000000000000085
24.000000000000085

('m2', 29) :	[(3, 2)]	4	30.0	34.0
('m2', 30) :	[(1, 1)]	5	31.0	36.0