<untitled> #26

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

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Warning: your license will expire in 3 days
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Using license file C:\gurobi903\win64\bin\gurobi.lic
Academic license - for non-commercial use only
Gurobi Optimizer version 9.0.3 build v9.0.3rc0 (win64)
Optimize a model with 10615 rows, 1157 columns and 52908 nonzeros
Model fingerprint: 0x11934bb6
Variable types: 50 continuous, 1107 integer (1107 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 10002 rows and 893 columns
Presolve time: 0.12s
Presolved: 613 rows, 264 columns, 4055 nonzeros
Variable types: 32 continuous, 232 integer (232 binary)
Found heuristic solution: objective 3.0122120

Root relaxation: objective 6.672171e-01, 377 iterations, 0.01 seconds

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

     0     0    0.66722    0   52    3.01221    0.66722  77.8%     -    0s
     0     0    2.00632    0   32    3.01221    2.00632  33.4%     -    0s
     0     0    2.00634    0   33    3.01221    2.00634  33.4%     -    0s
     0     0    2.00697    0   42    3.01221    2.00697  33.4%     -    0s
     0     0    2.00697    0   44    3.01221    2.00697  33.4%     -    0s
     0     0    2.00771    0   41    3.01221    2.00771  33.3%     -    0s
     0     0    2.00771    0   38    3.01221    2.00771  33.3%     -    0s
     0     0    2.00773    0   41    3.01221    2.00773  33.3%     -    0s
     0     0    2.00773    0   40    3.01221    2.00773  33.3%     -    0s
     0     2    2.00773    0   40    3.01221    2.00773  33.3%     -    0s
H    4     4                       3.0102120    2.00821  33.3%  51.3    0s

Cutting planes:
  Learned: 3
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<untitled> #26

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  Gomory: 1
  Cover: 22
  Implied bound: 1
  Clique: 16
  MIR: 9
  Flow cover: 3
  GUB cover: 2
  Zero half: 2
  RLT: 4
  Relax-and-lift: 2

Explored 50 nodes (1376 simplex iterations) in 0.40 seconds
Thread count was 4 (of 4 available processors)

Solution count 2: 3.01021 3.01221

Optimal solution found (tolerance 1.00e-04)
Best objective 3.010212000000e+00, best bound 3.010212000000e+00, gap 0.0000%
<gurobi.Model MIP instance MILP Model: 10615 constrs, 1157 vars, No parameter changes>

Solution Results

Time =  1.3298075199127197 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- 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                      26.0            40.0
('m2', 9)  :     [(3, 1)]        6                       34.0            40.0
('m2', 15) :     [(3, 1)]        5                       0.0             5.0
('m2', 17) :     [(3, 2)]        6                       24.0            30.0
('m2', 22) :     [(3, 1)]        15                      9.0             24.0
('m2', 29) :     [(3, 2)]        4                       30.0            34.0
('m2', 30) :     [(3, 2)]        5                       35.0            40.0
#### MODEL- m4  ####
(m, i)           (j,s)           Processing Time         Starting Time   Ending Time
('m4', 1)  :     [(1, 1)]        5                       0.0             5.0
('m4', 4)  :     [(1, 2)]        7                       6.0             13.0
('m4', 6)  :     [(1, 2)]        11                      29.0            40.0
('m4', 9)  :     [(1, 2)]        16                      13.0            29.0
('m4', 11) :     [(3, 1)]        33                      0.0             33.0
('m4', 13) :     [(1, 1)]        6                       29.0            35.0
('m4', 17) :     [(3, 2)]        16                      24.0            40.0
('m4', 18) :     [(2, 2)]        32                      8.0             40.0
```