
```
************************************************************

   NEOS Server Version 5.0
   Job#     : 6178752
   Password : qgPTBoZe
   User     : None
   Solver   : milp:CPLEX:GAMS
   Start    : 2018-07-24 16:44:10
   End      : 2018-07-24 17:08:11
   Host     : NEOS HTCondor Pool

   Disclaimer:

   This information is provided without any express or
   implied warranty. In particular, there is no warranty
   of any kind concerning the fitness of this
   information  for any particular purpose.
************************************************************
Executed on prod-exec-5.neos-server.org
GAMS 24.9.2  r64480 Released Nov 14, 2017 LEX-LEG x86 64bit/Linux 07/24/18 16:44:11 Page 1
G e n e r a l   A l g e b r a i c   M o d e l i n g   S y s t e m
C o m p i l a t i o n



COMPILATION TIME     =        0.005 SECONDS      3 MB  24.9.2 r64480 LEX-LEG
GAMS 24.9.2  r64480 Released Nov 14, 2017 LEX-LEG x86 64bit/Linux 07/24/18 16:44:11 Page 2
G e n e r a l   A l g e b r a i c   M o d e l i n g   S y s t e m
Model Analysis      SOLVE aero_model Using MIP From line 1216


****
****  2430 Integer +INF Bounds have been reset to 100 (see Option IntVarUp)
****
GAMS 24.9.2  r64480 Released Nov 14, 2017 LEX-LEG x86 64bit/Linux 07/24/18 16:44:11 Page 3
G e n e r a l   A l g e b r a i c   M o d e l i n g   S y s t e m
Model Statistics    SOLVE aero_model Using MIP From line 1216


LOOPS                                  zz   z1


MODEL STATISTICS

BLOCKS OF EQUATIONS          64     SINGLE EQUATIONS      558,499
BLOCKS OF VARIABLES          38     SINGLE VARIABLES      932,864
NON ZERO ELEMENTS     5,473,927     DISCRETE VARIABLES      2,459


GENERATION TIME      =      214.398 SECONDS  1,068 MB  24.9.2 r64480 LEX-LEG


EXECUTION TIME       =      216.905 SECONDS  1,068 MB  24.9.2 r64480 LEX-LEG
             L O O P S                 zz z1

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G e n e r a l   A l g e b r a i c   M o d e l i n g   S y s t e m
Solution Report     SOLVE aero_model Using MIP From line 1216


               S O L V E      S U M M A R Y
```

```
     MODEL   aero_model          OBJECTIVE  objective
     TYPE    MIP                 DIRECTION  MAXIMIZE
     SOLVER  CPLEX               FROM LINE  1216

**** SOLVER STATUS     1 Normal Completion
**** MODEL STATUS      8 Integer Solution
**** OBJECTIVE VALUE       -762307370.6515

 RESOURCE USAGE, LIMIT       1205.573 1728000000.000
 ITERATION COUNT, LIMIT     78198     900000000

IBM ILOG CPLEX   24.9.2 r64480 Released Nov 14, 2017 LEG x86 64bit/Linux
--- GAMS/Cplex licensed for continuous and discrete problems.
Cplex 12.7.1.0

Space for names approximately 62.69 Mb
Use option 'names no' to turn use of names off
MIP status(102): integer optimal, tolerance
Cplex Time: 1152.43sec (det. 164038.70 ticks)
Fixing integer variables, and solving final LP...
Fixed MIP status(1): optimal
Cplex Time: 48.88sec (det. 10389.99 ticks)
Solution satisfies tolerances.

MIP Solution:   -762307370.651457    (47939 iterations, 0 nodes)
Final Solve:    -762307370.651457    (30259 iterations)

Best possible:  -761428147.358228
Absolute gap:       879223.293229
Relative gap:            0.001153



**** REPORT SUMMARY :        0     NONOPT
                             0 INFEASIBLE
                             0  UNBOUNDED
GAMS 24.9.2  r64480 Released Nov 14, 2017 LEX-LEG x86 64bit/Linux 07/24/18 16:44:11 Page 5
G e n e r a l   A l g e b r a i c   M o d e l i n g   S y s t e m
E x e c u t i o n


----   1218 VARIABLE results.L  Results

z1 -7.62307E+8


----   1219 VARIABLE Production.L  Production at plant f of product p in day d

INDEX 1 = f1

                y1          y2          y3          y4          y5          y6

p2.t1       38.769      38.769      17.000      34.000      38.769      25.846
p2.t2       38.769      12.231      30.435                  38.769      25.846
p2.t3        7.462                  51.692      17.000      33.231      25.846
p2.t4                   38.769                  38.769                  23.077
p2.t5                   38.769      51.692      38.769                  25.846
p2.t6       34.000      34.596                  26.121      25.231
p2.t7                                2.181
p2.t8       38.769                              38.769                  25.846
p2.t9       12.231                                          29.231      25.846
p2.t10                  38.769      51.000                  38.769      25.846
p2.t11      17.000
p2.t12      17.000       2.097                  10.571

     +          y7          y8          y9         y10         y11         y12

p2.t1       25.846      25.846      17.000      17.000      17.000      17.000
p2.t2       25.846      25.846      17.000      17.000      17.000      17.000
p2.t3                               17.000      17.000      17.000      17.000
p2.t4       25.846      25.846      17.000      17.000      17.000      17.000
p2.t5       25.846      25.846      17.000      17.000      17.000      17.000
p2.t6       25.846      15.615      17.000      17.000      17.000      17.000
p2.t7                               17.000      17.000      17.000      17.000
p2.t8       25.846      25.846      17.000      17.000      17.000      17.000
p2.t9        6.077       8.154      17.000      17.000      17.000      17.000
p2.t10      25.846      25.154      17.000      17.000      17.000      17.000
```

```
p2.t11                25.846      17.000      17.000      17.000      17.000
p2.t12      17.000                17.000      17.000      17.000      17.000

     +         y13         y14         y15

p2.t1       17.000      17.000      17.000
p2.t2       17.000      17.000      17.000
p2.t3       17.000      17.000      17.000
p2.t4       17.000      17.000      17.000
p2.t5       17.000      17.000      17.000
p2.t6       17.000      17.000      17.000
p2.t7       17.000      17.000      17.000
p2.t8       17.000      17.000      17.000
p2.t9       17.000      17.000      17.000
p2.t10      17.000      17.000      17.000
p2.t11      17.000      17.000      17.000
p2.t12      17.000      17.000      17.000


----   1219 VARIABLE Flow.L  Flow of material m from l.origin to l.destination
                             in period t (in units)

INDEX 1 = i1  INDEX 2 = f1  INDEX 3 = rm2

                               y1          y2          y3          y4

truck_out       .t2                              116503.615
truck_out       .t8                                          148408.615
truckCOOL_own   .t4                 148408.615
truckCOOL_own   .t5                                          148408.615
truckCOOL_own   .t12    65076.000
truckCOOL_out   .t1                 148408.615
truckCOOL_out   .t3     28562.769
truckCOOL_out   .t6    130152.000
truck_XL_own    .t3                              197878.154
truck_XL_own    .t5                 148408.615
truck_XL_own    .t11    65076.000
truck_XL_own    .t12     8026.282
truck_XL_out    .t8    148408.615
truck_XL_out    .t10                148408.615
truckCOOL_XL_own.t1    148408.615
truckCOOL_XL_out.t2     46819.385
truckCOOL_XL_out.t6                                          99991.933

                   +          y5          y6          y7          y8

truck_own       .t1    148408.615
truck_own       .t2                  98939.077
truck_own       .t12                             65076.000
truck_out       .t1                  98939.077
truck_out       .t5                  98939.077
truck_out       .t11                                         98939.077
truckCOOL_own   .t1                              98939.077
truckCOOL_own   .t2                              98939.077
truckCOOL_own   .t3    127207.612
truckCOOL_own   .t9                  98939.077
truckCOOL_out   .t2    148408.615
truckCOOL_out   .t10                 98939.077
truck_XL_own    .t4                                          98939.077
truck_XL_own    .t8                              98939.077
truck_XL_out    .t3                  98939.077
truck_XL_out    .t4                              98939.077
truckCOOL_XL_own.t1                                          98939.077
truckCOOL_XL_out.t2                                          98939.077
truckCOOL_XL_out.t4                  88338.462
truckCOOL_XL_out.t5                              98939.077
truckCOOL_XL_out.t8                  98939.077

                   +          y9         y10         y11         y12

truck_XL_own    .t1    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t2    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t3    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t4    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t5    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t6    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t7    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t8    65076.000   65076.000   65076.000   65076.000
```

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truck_XL_own    .t9    65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t10   65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t11   65076.000   65076.000   65076.000   65076.000
truck_XL_own    .t12   65076.000   65076.000   65076.000   65076.000

                  +         y13         y14         y15

truck_XL_own    .t1    65076.000   65076.000   65076.000
truck_XL_own    .t2    65076.000   65076.000   65076.000
truck_XL_own    .t3    65076.000   65076.000   65076.000
truck_XL_own    .t4    65076.000   65076.000   65076.000
truck_XL_own    .t5    65076.000   65076.000   65076.000
truck_XL_own    .t6    65076.000   65076.000   65076.000
truck_XL_own    .t7    65076.000   65076.000   65076.000
truck_XL_own    .t8    65076.000   65076.000   65076.000
truck_XL_own    .t9    65076.000   65076.000   65076.000
truck_XL_own    .t10   65076.000   65076.000   65076.000
truck_XL_own    .t11   65076.000   65076.000   65076.000
truck_XL_own    .t12   65076.000   65076.000   65076.000

INDEX 1 = i1  INDEX 2 = f1  INDEX 3 = rm3

                              y1          y2          y3          y4

truckCOOL_own   .t1     6513.231
truckCOOL_own   .t2                                 5113.011
truckCOOL_own   .t4                   6513.231
truckCOOL_out   .t3     1253.538                                  2856.000
truckCOOL_out   .t5                   6513.231
truckCOOL_out   .t7                                  366.373
truckCOOL_XL_own.t2                   2054.769
truckCOOL_XL_own.t4                                               6513.231
truckCOOL_XL_own.t5                                 8684.308
truckCOOL_XL_own.t6                                               4388.361
truckCOOL_XL_own.t8                                               6513.231
truckCOOL_XL_own.t11    2856.000
truckCOOL_XL_out.t1                                 2856.000
truckCOOL_XL_out.t3                                 8684.308
truckCOOL_XL_out.t5                                               6513.231
truckCOOL_XL_out.t6     5712.000
truckCOOL_XL_out.t9     2054.769
truckCOOL_XL_out.t10                                8568.000

                  +          y5          y6          y7          y8

truckCOOL_own   .t1                                               4342.154
truckCOOL_own   .t3                   4342.154
truckCOOL_own   .t5                                 4342.154
truckCOOL_own   .t8                                 4342.154
truckCOOL_own   .t12                                2856.000
truckCOOL_out   .t6     4238.759
truckCOOL_out   .t9                   4342.154
truckCOOL_XL_own.t2                                               4342.154
truckCOOL_XL_own.t3     5582.779
truckCOOL_XL_own.t4                   3876.923    4342.154
truckCOOL_XL_own.t6                                               2623.385
truckCOOL_XL_own.t11                                              4342.154
truckCOOL_XL_out.t1                                 4342.154
truckCOOL_XL_out.t2     6513.231
truckCOOL_XL_out.t5                   4342.154
truckCOOL_XL_out.t8                   4342.154
truckCOOL_XL_out.t9     4910.769
truckCOOL_XL_out.t10                                4342.154    4225.846

                  +          y9         y10         y11         y12

truckCOOL_XL_own.t1     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t2     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t3     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t4     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t5     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t6     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t7     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t8     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t9     2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t10    2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t11    2856.000    2856.000    2856.000    2856.000
truckCOOL_XL_own.t12    2856.000    2856.000    2856.000    2856.000
```

```
                    +          y13          y14          y15

truckCOOL_XL_own.t1      2856.000     2856.000     2856.000
truckCOOL_XL_own.t2      2856.000     2856.000     2856.000
truckCOOL_XL_own.t3      2856.000     2856.000     2856.000
truckCOOL_XL_own.t4      2856.000     2856.000     2856.000
truckCOOL_XL_own.t5      2856.000     2856.000     2856.000
truckCOOL_XL_own.t6      2856.000     2856.000     2856.000
truckCOOL_XL_own.t7      2856.000     2856.000     2856.000
truckCOOL_XL_own.t8      2856.000     2856.000     2856.000
truckCOOL_XL_own.t9      2856.000     2856.000     2856.000
truckCOOL_XL_own.t10     2856.000     2856.000     2856.000
truckCOOL_XL_own.t11     2856.000     2856.000     2856.000
truckCOOL_XL_own.t12     2856.000     2856.000     2856.000

 INDEX 1 = i1  INDEX 2 = f1  INDEX 3 = sp1

                              y1           y2           y3           y4

truck_own        .t8                                            23261.538
truck_out        .t5                 23261.538
truck_XL_own     .t1     23261.538
truck_XL_own     .t12                                            6342.668
truckCOOL_XL_own.t2                                  18260.755
truckCOOL_XL_own.t5                                            23261.538

                    +          y6           y7           y9          y10

truckCOOL_own    .t4     13846.154
truckCOOL_out    .t5     15507.692
truckCOOL_out    .t9                  3646.154
truckCOOL_out    .t10    15507.692
truck_XL_own     .t1                                 10200.000    10200.000
truck_XL_own     .t2                                 10200.000    10200.000
truck_XL_own     .t3                                 10200.000    10200.000
truck_XL_own     .t4                                 10200.000    10200.000
truck_XL_own     .t5                                 10200.000    10200.000
truck_XL_own     .t6                                 10200.000    10200.000
truck_XL_own     .t7                                 10200.000    10200.000
truck_XL_own     .t8                                 10200.000    10200.000
truck_XL_own     .t9                                 10200.000    10200.000
truck_XL_own     .t10                                10200.000    10200.000
truck_XL_own     .t11                                10200.000    10200.000
truck_XL_own     .t12                                10200.000    10200.000
truckCOOL_XL_out.t8                 15507.692

                    +          y11          y12          y13          y14

truck_XL_own     .t1     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t2     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t3     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t4     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t5     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t6     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t7     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t8     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t9     10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t10    10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t11    10200.000    10200.000    10200.000    10200.000
truck_XL_own     .t12    10200.000    10200.000    10200.000    10200.000

                    +          y15

truck_XL_own     .t1     10200.000
truck_XL_own     .t2     10200.000
truck_XL_own     .t3     10200.000
truck_XL_own     .t4     10200.000
truck_XL_own     .t5     10200.000
truck_XL_own     .t6     10200.000
truck_XL_own     .t7     10200.000
truck_XL_own     .t8     10200.000
truck_XL_own     .t9     10200.000
truck_XL_own     .t10    10200.000
truck_XL_own     .t11    10200.000
truck_XL_own     .t12    10200.000

 INDEX 1 = i1  INDEX 2 = f1  INDEX 3 = sp2
```

```
                              y1          y2          y3          y4

truck_own       .t4                 69784.615
truck_own       .t9    22015.385
truck_out       .t12                 3774.114
truckCOOL_own   .t4                                          69784.615
truckCOOL_own   .t7                               3925.428
truckCOOL_out   .t8    69784.615
truck_XL_own    .t5                              93046.154
truck_XL_own    .t10                             91800.000
truck_XL_own    .t12   30600.000
truck_XL_out    .t3    13430.769
truck_XL_out    .t8                                          69784.615
truckCOOL_XL_own.t2                              54782.264
truckCOOL_XL_out.t1                 69784.615
truckCOOL_XL_out.t3                                          30600.000

                    +          y5          y6          y7          y8

truck_own       .t3                 46523.077
truck_own       .t9                              10938.462
truck_out       .t4                              46523.077
truck_out       .t6    45415.278
truck_out       .t10                46523.077
truckCOOL_own   .t6                                          28107.692
truck_XL_own    .t12                             30600.000
truckCOOL_XL_own.t2                                          46523.077
truckCOOL_XL_own.t11                                         46523.077
truckCOOL_XL_out.t2                              46523.077
truckCOOL_XL_out.t4                 41538.462
truckCOOL_XL_out.t5                              46523.077

                    +          y9         y10         y11         y12

truck_XL_own    .t1    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t2    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t3    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t4    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t5    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t6    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t7    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t8    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t9    30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t10   30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t11   30600.000   30600.000   30600.000   30600.000
truck_XL_own    .t12   30600.000   30600.000   30600.000   30600.000

                    +         y13         y14         y15

truck_XL_own    .t1    30600.000   30600.000   30600.000
truck_XL_own    .t2    30600.000   30600.000   30600.000
truck_XL_own    .t3    30600.000   30600.000   30600.000
truck_XL_own    .t4    30600.000   30600.000   30600.000
truck_XL_own    .t5    30600.000   30600.000   30600.000
truck_XL_own    .t6    30600.000   30600.000   30600.000
truck_XL_own    .t7    30600.000   30600.000   30600.000
truck_XL_own    .t8    30600.000   30600.000   30600.000
truck_XL_own    .t9    30600.000   30600.000   30600.000
truck_XL_own    .t10   30600.000   30600.000   30600.000
truck_XL_own    .t11   30600.000   30600.000   30600.000
truck_XL_own    .t12   30600.000   30600.000   30600.000

INDEX 1 = i3  INDEX 2 = f1  INDEX 3 = rm2

                              y1          y2          y3          y4

truck_own       .t9    46819.385
truckCOOL_out   .t1                               65076.000
truckCOOL_out   .t6                132431.872
truckCOOL_out   .t7                                8348.077
truckCOOL_out   .t10                             195228.000
truck_XL_own    .t1                                          130152.000
truck_XL_own    .t5                              197878.154
truck_XL_out    .t2   148408.615
truckCOOL_XL_own.t4                                          148408.615
truckCOOL_XL_out.t3                                           65076.000
truckCOOL_XL_out.t12                                          40466.221
```

```
                  +          y5          y7          y8

truck_out       .t5                           98939.077
truck_out       .t10                          96288.923
truckCOOL_own   .t8                           98939.077
truckCOOL_own   .t10  148408.615
truckCOOL_out   .t6                98939.077  59775.692
truckCOOL_out   .t9                23262.462
truck_XL_own    .t9   111895.385
truck_XL_own    .t10               98939.077
truckCOOL_XL_own.t6    96583.158
truckCOOL_XL_own.t9                           31212.923

INDEX 1 = i3  INDEX 2 = f1  INDEX 3 = rm3

                             y1          y2          y4          y5

truckCOOL_own   .t6                 5812.057
truckCOOL_own   .t10                6513.231                6513.231
truckCOOL_own   .t12                 352.251
truckCOOL_out   .t1                                5712.000
truckCOOL_out   .t12    2856.000
truckCOOL_XL_own.t1                 6513.231
truckCOOL_XL_own.t12                               1775.947
truckCOOL_XL_out.t1                                         6513.231
truckCOOL_XL_out.t2     6513.231
truckCOOL_XL_out.t8     6513.231

                  +          y6          y7          y8

truckCOOL_own   .t1     4342.154
truckCOOL_own   .t5                           4342.154
truckCOOL_own   .t9                 1020.923
truckCOOL_own   .t10    4342.154
truckCOOL_out   .t2     4342.154    4342.154
truckCOOL_XL_own.t9                           1369.846
truckCOOL_XL_out.t4                           4342.154
truckCOOL_XL_out.t6                 4342.154
truckCOOL_XL_out.t8                           4342.154

INDEX 1 = i3  INDEX 2 = f1  INDEX 3 = sp1

                             y1          y2          y3          y4

truck_own       .t3     4476.923                            10200.000
truck_out       .t6                                         15672.717
truckCOOL_own   .t5                           31015.385
truckCOOL_out   .t2    23261.538
truckCOOL_out   .t4                23261.538
truckCOOL_out   .t10               23261.538
truckCOOL_out   .t12   10200.000
truck_XL_own    .t1                                         20400.000
truck_XL_own    .t2                 7338.462
truck_XL_own    .t6                20757.347
truck_XL_own    .t9     7338.462
truck_XL_out    .t1                23261.538
truck_XL_out    .t6    20400.000
truck_XL_out    .t8    23261.538
truck_XL_out    .t10                          30600.000
truck_XL_out    .t11   10200.000
truckCOOL_XL_own.t1                           10200.000
truckCOOL_XL_own.t3                           31015.385
truckCOOL_XL_own.t4                                         23261.538
truckCOOL_XL_own.t7                            1308.476
truckCOOL_XL_own.t12                1258.038

                  +          y5          y6          y7          y8

truck_own       .t6    15138.426
truck_own       .t10                                        15092.308
truck_out       .t3    19938.497
truck_out       .t8                                         15507.692
truck_out       .t9                                          4892.308
truck_out       .t11                                        15507.692
truckCOOL_own   .t1                15507.692   15507.692
truckCOOL_own   .t2                15507.692   15507.692
truckCOOL_own   .t6                           15507.692
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truckCOOL_own    .t10                          15507.692
truckCOOL_out    .t1                                      15507.692
truckCOOL_out    .t3               15507.692
truckCOOL_out    .t9               15507.692
truckCOOL_out    .t12                          10200.000
truck_XL_own     .t4                                      15507.692
truck_XL_own     .t5                           15507.692
truck_XL_out     .t4                           15507.692
truck_XL_out     .t5                                      15507.692
truckCOOL_XL_own.t1     23261.538
truckCOOL_XL_own.t2                                       15507.692
truckCOOL_XL_own.t6                                        9369.231
truckCOOL_XL_own.t8               15507.692
truckCOOL_XL_own.t9     17538.462
truckCOOL_XL_out.t2     23261.538
truckCOOL_XL_out.t10    23261.538

INDEX 1 = i3  INDEX 2 = f1  INDEX 3 = sp2

                              y1          y2          y3          y4

truck_out        .t1                                      61200.000
truck_out        .t5                                      69784.615
truckCOOL_out    .t2     69784.615
truck_XL_own     .t2                22015.385
truck_XL_own     .t6                62272.040                47018.150
truckCOOL_XL_own.t3                           93046.154
truckCOOL_XL_own.t10               69784.615
truckCOOL_XL_own.t11    30600.000
truckCOOL_XL_out.t1     69784.615             30600.000
truckCOOL_XL_out.t5                69784.615
truckCOOL_XL_out.t6     61200.000
truckCOOL_XL_out.t12                                      19028.003

                   +          y5          y6          y7          y8

truck_own        .t1                                      46523.077
truck_own        .t8                46523.077
truck_own        .t9                46523.077
truck_own        .t10                          46523.077
truck_out        .t1     69784.615
truck_out        .t5                46523.077
truck_out        .t9                                      14676.923
truck_out        .t10                                     45276.923
truckCOOL_own    .t2                46523.077
truckCOOL_out    .t1                46523.077
truckCOOL_out    .t8                                      46523.077
truck_XL_own     .t1                           46523.077
truck_XL_own     .t2     69784.615
truck_XL_own     .t3     59815.491
truck_XL_own     .t4                                      46523.077
truck_XL_own     .t9     52615.385
truck_XL_own     .t10    69784.615
truckCOOL_XL_own.t5                                       46523.077
truckCOOL_XL_own.t8                           46523.077
truckCOOL_XL_out.t6                           46523.077

INDEX 1 = f1  INDEX 2 = airPT  INDEX 3 = p2

                              y1          y2          y6          y7

truck_XL_own     .t9                                   17.000
truck_XL_own     .t10       17.000
truck_XL_out     .t4                                                17.000
truckCOOL_XL_own.t2                                    17.000
truckCOOL_XL_own.t3                    17.000

                   +          y8

truck_XL_own     .t3         7.752
truckCOOL_XL_own.t1        17.000
truckCOOL_XL_out.t3         9.248

INDEX 1 = f1  INDEX 2 = airFR  INDEX 3 = p2

                              y1          y7

truck_XL_own     .t7                    17.000
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truckCOOL_XL_own.t1       17.000

INDEX 1 = f1  INDEX 2 = portPT  INDEX 3 = p2

                              y1          y2          y3          y4

truck_XL_own    .t1                     17.000                  17.000
truck_XL_own    .t2                                 17.000
truck_XL_own    .t3                                 17.000      17.000
truck_XL_own    .t4                     17.000                  17.000
truck_XL_own    .t6                     17.000                  17.000
truck_XL_own    .t7                     17.000
truck_XL_own    .t8                                             17.000
truck_XL_own    .t9                                             17.000
truck_XL_own    .t10                    17.000      17.000      17.000
truck_XL_own    .t11                    17.000
truck_XL_own    .t12                                17.000      17.000
truck_XL_out    .t3       12.346
truckCOOL_XL_own.t1                                 17.000
truckCOOL_XL_own.t2       17.000      17.000                  17.000
truckCOOL_XL_own.t4                                 17.000
truckCOOL_XL_own.t5                     17.000      17.000      17.000
truckCOOL_XL_own.t6                                 17.000
truckCOOL_XL_own.t7                                 17.000      17.000
truckCOOL_XL_own.t8                                 17.000
truckCOOL_XL_own.t9                     17.000      17.000
truckCOOL_XL_own.t11      17.000                    17.000      17.000
truckCOOL_XL_own.t12      17.000      17.000

                    +          y5          y6          y7          y8

truck_XL_own    .t2       17.000                  17.000
truck_XL_own    .t4       17.000      17.000                  17.000
truck_XL_own    .t5       17.000
truck_XL_own    .t6       17.000                              17.000
truck_XL_own    .t7       17.000
truck_XL_own    .t9       17.000
truck_XL_own    .t10      17.000
truck_XL_own    .t11      17.000
truck_XL_out    .t12                                17.000
truckCOOL_XL_own.t1       17.000      17.000      17.000
truckCOOL_XL_own.t3       17.000                  17.000
truckCOOL_XL_own.t6                   17.000
truckCOOL_XL_own.t7                   17.000
truckCOOL_XL_own.t8       17.000                              17.000
truckCOOL_XL_own.t9                                 17.000
truckCOOL_XL_own.t11                  17.000
truckCOOL_XL_own.t12      17.000
truckCOOL_XL_out.t5                                             17.000
truckCOOL_XL_out.t11                                17.000

                    +          y9         y10         y11         y12

truck_XL_own    .t1       17.000      17.000      17.000      17.000
truck_XL_own    .t2       17.000      17.000      17.000      17.000
truck_XL_own    .t3       17.000      17.000      17.000      17.000
truck_XL_own    .t4       17.000      17.000      17.000      17.000
truck_XL_own    .t5       17.000      17.000      17.000      17.000
truck_XL_own    .t6       17.000      17.000      17.000      17.000
truck_XL_own    .t7       17.000      17.000      17.000      17.000
truck_XL_own    .t8       17.000      17.000      17.000      17.000
truck_XL_own    .t9       17.000      17.000      17.000      17.000
truck_XL_own    .t10      17.000      17.000      17.000      17.000
truck_XL_own    .t11      17.000      17.000      17.000      17.000
truck_XL_own    .t12      17.000      17.000      17.000      17.000

                    +          y13         y14         y15

truck_XL_own    .t1       17.000      17.000      17.000
truck_XL_own    .t2       17.000      17.000      17.000
truck_XL_own    .t3       17.000      17.000      17.000
truck_XL_own    .t4       17.000      17.000      17.000
truck_XL_own    .t5       17.000      17.000      17.000
truck_XL_own    .t6       17.000      17.000      17.000
truck_XL_own    .t7       17.000      17.000      17.000
truck_XL_own    .t8       17.000      17.000      17.000
truck_XL_own    .t9       17.000      17.000      17.000
truck_XL_own    .t10      17.000      17.000      17.000
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truck_XL_own    .t11      17.000      17.000      17.000
truck_XL_own    .t12      17.000      17.000      17.000

INDEX 1 = f1  INDEX 2 = portFR  INDEX 3 = p2

                              y1          y2          y6          y7

truck_XL_own    .t3         4.654
truck_XL_own    .t4        17.000
truck_XL_own    .t6                                              17.000
truck_XL_own    .t8        17.000                                17.000
truck_XL_out    .t10                                             17.000
truckCOOL_XL_own.t3                                 17.000
truckCOOL_XL_own.t5        17.000                   17.000      17.000
truckCOOL_XL_own.t7        17.000
truckCOOL_XL_own.t8                    17.000       17.000
truckCOOL_XL_own.t9        17.000
truckCOOL_XL_own.t10                                17.000
truckCOOL_XL_own.t12                                17.000
truckCOOL_XL_out.t6        17.000

                    +          y8

truck_XL_own    .t7        17.000
truck_XL_out    .t9        17.000
truck_XL_out    .t10       17.000
truckCOOL_XL_own.t12       17.000
truckCOOL_XL_out.t2        17.000
truckCOOL_XL_out.t11       17.000

INDEX 1 = airPT  INDEX 2 = airBR  INDEX 3 = p2

                              y1          y6          y7          y8

plane           .t1                                              17.000
plane           .t2                    11.575
plane           .t3        12.346
planeCOOL       .t1                                 17.000
planeCOOL       .t3                                              17.000
planeCOOL       .t4                                 17.000
planeCOOL       .t10       17.000

INDEX 1 = airPT  INDEX 2 = portPT  INDEX 3 = p2

                              y6

truckCOOL_XL_own.t9        17.000

INDEX 1 = airPT  INDEX 2 = portFR  INDEX 3 = p2

                              y2          y6

truck_XL_own    .t2                     5.425
truckCOOL_XL_own.t3        17.000

INDEX 1 = airBR  INDEX 2 = j1  INDEX 3 = p2

                              y1          y3          y4          y6

truck_XL_own    .t1        17.000
truck_XL_own    .t2                                              17.000
truck_XL_own    .t6                    17.000                    17.000
truck_XL_own    .t10                                17.000
truck_XL_own    .t11                                17.000
truck_XL_out    .t10       17.000
truckCOOL_XL_own.t2                                 17.000
truckCOOL_XL_own.t3        12.346
truckCOOL_XL_own.t5                    17.000
truckCOOL_XL_own.t12                                17.000

                    +          y7          y8

truck_XL_own    .t3                    17.000
truck_XL_own    .t4        17.000
truck_XL_out    .t1        17.000
truckCOOL_XL_out.t7        17.000

INDEX 1 = airBR  INDEX 2 = portBR  INDEX 3 = p2
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                              y8

truckCOOL_XL_own.t1       17.000

INDEX 1 = airFR  INDEX 2 = airBR  INDEX 3 = p2

                              y1          y6          y7

plane           .t1       17.000
plane           .t6                   17.000
planeCOOL       .t7                                 17.000

INDEX 1 = portUS  INDEX 2 = portBR  INDEX 3 = p2

                              y1          y7

boat            .t4       17.000
boatCOOL        .t5                   17.000

INDEX 1 = portPT  INDEX 2 = airPT  INDEX 3 = p2

                              y1          y7

truck_XL_own    .t1                   17.000
truck_XL_own    .t3       12.346

INDEX 1 = portPT  INDEX 2 = airFR  INDEX 3 = p2

                              y6

truck_XL_own    .t6       17.000

INDEX 1 = portPT  INDEX 2 = portBR  INDEX 3 = p2

                              y1          y2          y3          y4

boat            .t1                   17.000      17.000      17.000
boat            .t2       17.000      17.000      17.000      17.000
boat            .t3                               17.000      17.000
boat            .t4                   17.000      17.000      17.000
boat            .t5                   17.000      17.000      17.000
boat            .t6                   17.000      17.000      17.000
boat            .t7                   17.000      17.000      17.000
boat            .t8                               17.000      17.000
boat            .t9                               17.000      17.000
boat            .t10                  17.000      17.000      17.000
boat            .t11                  17.000      17.000      17.000
boat            .t12      17.000      17.000      17.000      17.000
boatCOOL        .t9                   17.000
boatCOOL        .t11      17.000

                  +           y5          y6          y7          y8

boat            .t1       17.000
boat            .t2       17.000
boat            .t3       17.000
boat            .t4       17.000      17.000
boat            .t5       17.000
boat            .t6       17.000
boat            .t7       17.000
boat            .t8       17.000                                  17.000
boat            .t9       17.000
boat            .t10      17.000
boat            .t11      17.000      17.000
boat            .t12      17.000
boatCOOL        .t1                   17.000
boatCOOL        .t2                               17.000
boatCOOL        .t3                               17.000
boatCOOL        .t4                                           17.000
boatCOOL        .t7                   17.000
boatCOOL        .t9                   17.000
boatCOOL        .t12                              17.000

                  +           y9         y10         y11         y12

boat            .t1       17.000      17.000      17.000      17.000
boat            .t2       17.000      17.000      17.000      17.000
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boat            .t3       17.000      17.000      17.000      17.000
boat            .t4       17.000      17.000      17.000      17.000
boat            .t5       17.000      17.000      17.000      17.000
boat            .t6       17.000      17.000      17.000      17.000
boat            .t7       17.000      17.000      17.000      17.000
boat            .t8       17.000      17.000      17.000      17.000
boat            .t9       17.000      17.000      17.000      17.000
boat            .t10      17.000      17.000      17.000      17.000
boat            .t11      17.000      17.000      17.000      17.000
boat            .t12      17.000      17.000      17.000      17.000

                  +          y13         y14         y15

boat            .t1       17.000      17.000      17.000
boat            .t2       17.000      17.000      17.000
boat            .t3       17.000      17.000      17.000
boat            .t4       17.000      17.000      17.000
boat            .t5       17.000      17.000      17.000
boat            .t6       17.000      17.000      17.000
boat            .t7       17.000      17.000      17.000
boat            .t8       17.000      17.000      17.000
boat            .t9       17.000      17.000      17.000
boat            .t10      17.000      17.000      17.000
boat            .t11      17.000      17.000      17.000
boat            .t12      17.000      17.000      17.000

INDEX 1 = portPT  INDEX 2 = portFR  INDEX 3 = p2

                              y7          y8

boat            .t11      17.000
boatCOOL        .t5                   17.000
boatCOOL        .t6                   17.000
boatCOOL        .t9       17.000

INDEX 1 = portBR  INDEX 2 = j1  INDEX 3 = p2

                              y1          y2          y3          y4

truck_XL_own    .t2       17.000
truck_XL_own    .t3        4.654                  17.000
truck_XL_own    .t4                              17.000
truck_XL_own    .t5       17.000      17.000
truck_XL_own    .t6                                          17.000
truck_XL_own    .t7                              17.000      17.000
truck_XL_own    .t8                                          17.000
truck_XL_own    .t9                                          17.000
truck_XL_own    .t11                  17.000      17.000
truck_XL_own    .t12                  17.000
truck_XL_out    .t6       17.000
truckCOOL_XL_own.t1                   17.000      17.000      17.000
truckCOOL_XL_own.t2                   17.000      17.000
truckCOOL_XL_own.t3                   17.000                  17.000
truckCOOL_XL_own.t4       17.000      17.000                  17.000
truckCOOL_XL_own.t5                                           17.000
truckCOOL_XL_own.t6                   17.000
truckCOOL_XL_own.t7       17.000      17.000
truckCOOL_XL_own.t8       17.000      17.000      17.000
truckCOOL_XL_own.t9       17.000      17.000      17.000
truckCOOL_XL_own.t10                  17.000      17.000
truckCOOL_XL_own.t11      17.000
truckCOOL_XL_own.t12                              17.000
truckCOOL_XL_out.t12      17.000

                  +          y5          y6          y7          y8

truck_XL_own    .t1       17.000
truck_XL_own    .t2       17.000                  15.566
truck_XL_own    .t3       17.000      17.000
truck_XL_own    .t4                   17.000
truck_XL_own    .t5                   17.000
truck_XL_own    .t6                               17.000
truck_XL_own    .t7       17.000
truck_XL_own    .t8       17.000
truck_XL_own    .t10      17.000
truck_XL_own    .t12      17.000
truck_XL_out    .t1                   17.000
truck_XL_out    .t2                                1.434
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truck_XL_out    .t4                                                 17.000
truck_XL_out    .t5                                                 17.000
truck_XL_out    .t7                                                 17.000
truckCOOL_XL_own.t4       17.000
truckCOOL_XL_own.t5       17.000
truckCOOL_XL_own.t6       17.000
truckCOOL_XL_own.t7                 17.000
truckCOOL_XL_own.t8                 17.000      17.000      17.000
truckCOOL_XL_own.t9       17.000    17.000      17.000      17.000
truckCOOL_XL_own.t10                17.000      17.000      17.000
truckCOOL_XL_own.t11      17.000    17.000      17.000      17.000
truckCOOL_XL_own.t12                17.000      17.000      17.000
truckCOOL_XL_out.t1                                             17.000
truckCOOL_XL_out.t2                                             17.000
truckCOOL_XL_out.t3                                 17.000
truckCOOL_XL_out.t5                                 17.000
truckCOOL_XL_out.t6                                             17.000

                   +          y9         y10         y11         y12

truck_XL_own    .t1       17.000                  17.000      17.000
truck_XL_own    .t2                               17.000
truck_XL_own    .t3       17.000                  17.000      17.000
truck_XL_own    .t4       17.000    17.000        17.000
truck_XL_own    .t5       17.000    17.000
truck_XL_own    .t6       17.000                  17.000
truck_XL_own    .t7                 17.000                    17.000
truck_XL_own    .t8                                           17.000
truck_XL_own    .t9                 17.000                    17.000
truck_XL_own    .t10      17.000                  17.000
truck_XL_own    .t11                17.000      17.000      17.000
truck_XL_own    .t12      17.000                              17.000
truckCOOL_XL_own.t1                 17.000
truckCOOL_XL_own.t2       17.000    17.000                    17.000
truckCOOL_XL_own.t3                 17.000
truckCOOL_XL_own.t4                                           17.000
truckCOOL_XL_own.t5                               17.000      17.000
truckCOOL_XL_own.t6                 17.000                    17.000
truckCOOL_XL_own.t7       17.000                  17.000
truckCOOL_XL_own.t8       17.000    17.000        17.000
truckCOOL_XL_own.t9       17.000                  17.000
truckCOOL_XL_own.t10                17.000                    17.000
truckCOOL_XL_own.t11      17.000
truckCOOL_XL_own.t12                17.000      17.000

                   +          y13         y14         y15

truck_XL_own    .t1       17.000
truck_XL_own    .t3                 17.000      17.000
truck_XL_own    .t4       17.000
truck_XL_own    .t5                 17.000      17.000
truck_XL_own    .t6       17.000                17.000
truck_XL_own    .t7                             17.000
truck_XL_own    .t8       17.000    17.000
truck_XL_own    .t9       17.000    17.000      17.000
truck_XL_own    .t10      17.000    17.000      17.000
truck_XL_own    .t12      17.000
truckCOOL_XL_own.t1                 17.000      17.000
truckCOOL_XL_own.t2       17.000    17.000      17.000
truckCOOL_XL_own.t3       17.000
truckCOOL_XL_own.t4                 17.000      17.000
truckCOOL_XL_own.t5       17.000
truckCOOL_XL_own.t6                 17.000
truckCOOL_XL_own.t7       17.000    17.000
truckCOOL_XL_own.t8                             17.000
truckCOOL_XL_own.t11      17.000    17.000      17.000
truckCOOL_XL_own.t12                17.000      17.000

INDEX 1 = portBR  INDEX 2 = airBR  INDEX 3 = p2

                              y3          y4          y6

truck_XL_own    .t5       17.000
truck_XL_own    .t6       17.000
truck_XL_own    .t11                17.000
truck_XL_own    .t12                17.000
truckCOOL_XL_own.t2                 17.000       5.425
truckCOOL_XL_own.t10                17.000
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INDEX 1 = portFR INDEX 2 = portUS INDEX 3 = p2

		y1	y7
boat	.t4	17.000	
boatCOOL	.t5		17.000

INDEX 1 = portFR INDEX 2 = portBR INDEX 3 = p2

		y1	y2	y6	y7
boat	.t2			5.425	
boat	.t3	4.654	17.000	17.000	
boat	.t5	17.000			
boat	.t6	17.000			17.000
boat	.t8		17.000	17.000	17.000
boat	.t9	17.000			
boat	.t10				17.000
boat	.t11				17.000
boatCOOL	.t5			17.000	
boatCOOL	.t7	17.000			
boatCOOL	.t8	17.000			
boatCOOL	.t9				17.000
boatCOOL	.t10			17.000	
boatCOOL	.t12			17.000	

		+	y8
boat	.t2	17.000	
boat	.t6	17.000	
boat	.t11	17.000	
boatCOOL	.t5	17.000	
boatCOOL	.t7	17.000	
boatCOOL	.t9	17.000	
boatCOOL	.t10	17.000	
boatCOOL	.t12	17.000	

---- 1219 VARIABLE Forming.L Forming scenario s is active

p2 1.000

---- 1219 VARIABLE MatOrder.L Order quantity of material m from supplier i t
o plant f in day d (in units)

INDEX 1 = i1 INDEX 2 = f1

	y1	y2	y3	y4	y5	y6
rm2.t1	301.337	301.337			301.337	200.892
rm2.t2		95.065	236.556		301.337	200.892
rm2.t3	57.995		401.783		258.290	200.892
rm2.t4		301.337				179.367
rm2.t5		301.337		301.337		200.892
rm2.t6	264.268			203.029		
rm2.t8	301.337			301.337		200.892
rm2.t9						200.892
rm2.t10		301.337				200.892
rm2.t11	132.134					
rm2.t12	132.134	16.297				
rm3.t1	28.318		12.417			
rm3.t2		8.934	22.230		28.318	
rm3.t3	5.450		37.758	12.417	24.273	18.879
rm3.t4		28.318		28.318		16.856
rm3.t5		28.318	37.758	28.318		18.879
rm3.t6	24.835			19.080	18.429	
rm3.t7			1.593			
rm3.t8				28.318		18.879
rm3.t9	8.934				21.351	18.879
rm3.t10			37.252			
rm3.t11	12.417					
sp1.t1	465.231					
sp1.t2			365.215			
sp1.t4						276.923
sp1.t5		465.231		465.231		310.154
sp1.t8				465.231		

sp1.t10						310.154
sp1.t12				126.853		
sp2.t1		1395.692				
sp2.t2			1095.645			
sp2.t3	268.615			612.000		930.462
sp2.t4		1395.692		1395.692		830.769
sp2.t5			1860.923			
sp2.t6					908.306	
sp2.t7			78.509			
sp2.t8	1395.692			1395.692		
sp2.t9	440.308					
sp2.t10			1836.000			930.462
sp2.t12	612.000	75.482				

+	y7	y8	y9	y10	y11	y12
rm2.t1	200.892	200.892	132.134	132.134	132.134	132.134
rm2.t2	200.892	200.892	132.134	132.134	132.134	132.134
rm2.t3			132.134	132.134	132.134	132.134
rm2.t4	200.892	200.892	132.134	132.134	132.134	132.134
rm2.t5	200.892		132.134	132.134	132.134	132.134
rm2.t6			132.134	132.134	132.134	132.134
rm2.t7			132.134	132.134	132.134	132.134
rm2.t8	200.892		132.134	132.134	132.134	132.134
rm2.t9			132.134	132.134	132.134	132.134
rm2.t10			132.134	132.134	132.134	132.134
rm2.t11		200.892	132.134	132.134	132.134	132.134
rm2.t12	132.134		132.134	132.134	132.134	132.134
rm3.t1	18.879	18.879	12.417	12.417	12.417	12.417
rm3.t2		18.879	12.417	12.417	12.417	12.417
rm3.t3			12.417	12.417	12.417	12.417
rm3.t4	18.879		12.417	12.417	12.417	12.417
rm3.t5	18.879		12.417	12.417	12.417	12.417
rm3.t6		11.406	12.417	12.417	12.417	12.417
rm3.t7			12.417	12.417	12.417	12.417
rm3.t8	18.879		12.417	12.417	12.417	12.417
rm3.t9			12.417	12.417	12.417	12.417
rm3.t10	18.879	18.373	12.417	12.417	12.417	12.417
rm3.t11		18.879	12.417	12.417	12.417	12.417
rm3.t12	12.417		12.417	12.417	12.417	12.417
sp1.t1			204.000	204.000	204.000	204.000
sp1.t2			204.000	204.000	204.000	204.000
sp1.t3			204.000	204.000	204.000	204.000
sp1.t4			204.000	204.000	204.000	204.000
sp1.t5			204.000	204.000	204.000	204.000
sp1.t6			204.000	204.000	204.000	204.000
sp1.t7			204.000	204.000	204.000	204.000
sp1.t8	310.154		204.000	204.000	204.000	204.000
sp1.t9	72.923		204.000	204.000	204.000	204.000
sp1.t10			204.000	204.000	204.000	204.000
sp1.t11			204.000	204.000	204.000	204.000
sp1.t12			204.000	204.000	204.000	204.000
sp2.t1			612.000	612.000	612.000	612.000
sp2.t2	930.462	930.462	612.000	612.000	612.000	612.000
sp2.t3			612.000	612.000	612.000	612.000
sp2.t4	930.462		612.000	612.000	612.000	612.000
sp2.t5	930.462		612.000	612.000	612.000	612.000
sp2.t6		562.154	612.000	612.000	612.000	612.000
sp2.t7			612.000	612.000	612.000	612.000
sp2.t8			612.000	612.000	612.000	612.000
sp2.t9	218.769		612.000	612.000	612.000	612.000
sp2.t10			612.000	612.000	612.000	612.000
sp2.t11		930.462	612.000	612.000	612.000	612.000
sp2.t12	612.000		612.000	612.000	612.000	612.000

+	y13	y14	y15
rm2.t1	132.134	132.134	132.134
rm2.t2	132.134	132.134	132.134
rm2.t3	132.134	132.134	132.134
rm2.t4	132.134	132.134	132.134
rm2.t5	132.134	132.134	132.134
rm2.t6	132.134	132.134	132.134
rm2.t7	132.134	132.134	132.134
rm2.t8	132.134	132.134	132.134
rm2.t9	132.134	132.134	132.134
rm2.t10	132.134	132.134	132.134
rm2.t11	132.134	132.134	132.134

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rm2.t12     132.134     132.134     132.134
rm3.t1       12.417      12.417      12.417
rm3.t2       12.417      12.417      12.417
rm3.t3       12.417      12.417      12.417
rm3.t4       12.417      12.417      12.417
rm3.t5       12.417      12.417      12.417
rm3.t6       12.417      12.417      12.417
rm3.t7       12.417      12.417      12.417
rm3.t8       12.417      12.417      12.417
rm3.t9       12.417      12.417      12.417
rm3.t10      12.417      12.417      12.417
rm3.t11      12.417      12.417      12.417
rm3.t12      12.417      12.417      12.417
sp1.t1      204.000     204.000     204.000
sp1.t2      204.000     204.000     204.000
sp1.t3      204.000     204.000     204.000
sp1.t4      204.000     204.000     204.000
sp1.t5      204.000     204.000     204.000
sp1.t6      204.000     204.000     204.000
sp1.t7      204.000     204.000     204.000
sp1.t8      204.000     204.000     204.000
sp1.t9      204.000     204.000     204.000
sp1.t10     204.000     204.000     204.000
sp1.t11     204.000     204.000     204.000
sp1.t12     204.000     204.000     204.000
sp2.t1      612.000     612.000     612.000
sp2.t2      612.000     612.000     612.000
sp2.t3      612.000     612.000     612.000
sp2.t4      612.000     612.000     612.000
sp2.t5      612.000     612.000     612.000
sp2.t6      612.000     612.000     612.000
sp2.t7      612.000     612.000     612.000
sp2.t8      612.000     612.000     612.000
sp2.t9      612.000     612.000     612.000
sp2.t10     612.000     612.000     612.000
sp2.t11     612.000     612.000     612.000
sp2.t12     612.000     612.000     612.000

INDEX 1 = i3  INDEX 2 = f1

                y1          y2          y3          y4          y5          y6

rm2.t1                              132.134     264.268
rm2.t2      301.337
rm2.t3                                          132.134
rm2.t4                                          301.337
rm2.t5                              401.783
rm2.t6                  268.897                             196.108
rm2.t7                               16.950
rm2.t9       95.065                                         227.199
rm2.t10                             396.402                 301.337
rm2.t12                                          82.165
rm3.t1                   28.318                  24.835      28.318      18.879
rm3.t2       28.318                                                      18.879
rm3.t6                   25.270
rm3.t8       28.318
rm3.t10                  28.318                              28.318      18.879
rm3.t12      12.417       1.532                   7.722
sp1.t1                  465.231     204.000     408.000     465.231     310.154
sp1.t2      465.231     146.769                             465.231     310.154
sp1.t3       89.538                 620.308     204.000     398.770     310.154
sp1.t4                  465.231                 465.231
sp1.t5                              620.308
sp1.t6      408.000     415.147                 313.454     302.769
sp1.t7                               26.170
sp1.t8      465.231                                                     310.154
sp1.t9      146.769                                         350.769     310.154
sp1.t10                 465.231     612.000                 465.231
sp1.t11     204.000
sp1.t12     204.000      25.161
sp2.t1     1395.692                 612.000    1224.000    1395.692     930.462
sp2.t2     1395.692     440.308                             1395.692     930.462
sp2.t3                              1860.923                1196.310
sp2.t5                  1395.692                1395.692                930.462
sp2.t6     1224.000    1245.441                 940.363
sp2.t8                                                                  930.462
sp2.t9                                                      1052.308    930.462
sp2.t10                 1395.692                            1395.692
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sp2.t11     612.000
sp2.t12                                    380.560

      +          y7          y8

rm2.t5                   200.892
rm2.t6       200.892     121.372
rm2.t8                   200.892
rm2.t9        47.233      63.376
rm2.t10      200.892     195.511
rm3.t2        18.879
rm3.t4                    18.879
rm3.t5                    18.879
rm3.t6        18.879
rm3.t8                    18.879
rm3.t9         4.439       5.956
sp1.t1       310.154     310.154
sp1.t2       310.154     310.154
sp1.t4       310.154     310.154
sp1.t5       310.154     310.154
sp1.t6       310.154     187.385
sp1.t8                   310.154
sp1.t9                    97.846
sp1.t10      310.154     301.846
sp1.t11                  310.154
sp1.t12      204.000
sp2.t1       930.462     930.462
sp2.t4                   930.462
sp2.t5                   930.462
sp2.t6       930.462
sp2.t8       930.462     930.462
sp2.t9                   293.538
sp2.t10      930.462     905.538


----   1219 VARIABLE StockLevel.L  Amount of material m stored in facility w in
                                   day d

INDEX 1 = f1

                 y1          y2          y3          y4          y5          y6

p2 .t1        21.769      21.769                  17.000      21.769       8.846
p2 .t2        43.538      17.000      13.435                  43.538      17.692
p2 .t3        34.000                  48.127                  59.769      26.538
p2 .t4        17.000      21.769      31.127      21.769      42.769      32.615
p2 .t5                    43.538      65.819      43.538      25.769      41.462
p2 .t6        17.000      61.134      48.819      52.660      34.000      24.462
p2 .t7                    44.134      34.000      35.660      17.000       7.462
p2 .t8        21.769      27.134      17.000      57.429                  16.308
p2 .t9        17.000      10.134                  40.429      12.231      25.154
p2 .t10                   31.903      34.000      23.429      34.000      34.000
p2 .t11                   14.903      17.000       6.429      17.000      17.000

      +          y7          y8

p2 .t1         8.846       8.846
p2 .t2        17.692      17.692
p2 .t3         0.692       0.692
p2 .t4         9.538       9.538
p2 .t5        18.385      18.385
p2 .t6        27.231      17.000
p2 .t7        10.231
p2 .t8        19.077       8.846
p2 .t9         8.154
p2 .t10       17.000       8.154
p2 .t11                   17.000


----   1219 VARIABLE vFixedCapInvest.L  Fixed capital investment of each invest
                                        ment gamma

fac    550000.000,    equip 7.506514E+8


----   1219 VARIABLE vCashFlow.L  Cash Flow

y9  -4.52024E+6,    y10 -4.52024E+6,    y11 -4.52684E+6,    y12 -4.52684E+6
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y13 -4.52684E+6,    y14 -4.52684E+6,    y15 -4.22434E+6


----   1219 VARIABLE HireResource.L  Hire resource

            y1          y3

o2       1.000
o4       1.000
l1       3.000       1.000


----   1219 VARIABLE FireResource.L  Fire resource

            y4          y6

l1       1.000       1.000


----   1219 VARIABLE Manuf_NrResource.L  Number of resources to hire for line f
                                         in period t

            y1          y2          y3          y4          y5          y6

o2       1.000       1.000       1.000       1.000       1.000       1.000
o4       1.000       1.000       1.000       1.000       1.000       1.000
l1       3.000       3.000       4.000       3.000       3.000       2.000

 +          y7          y8          y9         y10         y11         y12

o2       1.000       1.000       1.000       1.000       1.000       1.000
o4       1.000       1.000       1.000       1.000       1.000       1.000
l1       2.000       2.000       2.000       2.000       2.000       2.000

 +         y13         y14         y15

o2       1.000       1.000       1.000
o4       1.000       1.000       1.000
l1       2.000       2.000       2.000


----   1219 VARIABLE NrTrips.L  Number of trips with transportation mode trm be
                                tween entity lo and entity ld in time period (d
                                t)

INDEX 1 = truck_own  INDEX 2 = i1

                    y1          y2          y4          y5          y6

f1    .t1                                             1.152
f1    .t2                                                         0.768
f1    .t3                                                         1.861
f1    .t4                   2.791
f1    .t8                               0.930
f1    .t9         0.881

         +          y7

f1    .t9         0.438
f1    .t12        0.505

INDEX 1 = truck_own  INDEX 2 = i3

                    y1          y4          y5          y6          y7

f1    .t3         0.179       0.408
f1    .t6                               0.606
f1    .t8                                         1.861
f1    .t9         0.363                           1.861
f1    .t10                                                    1.861

         +          y8

f1    .t1         1.861
f1    .t10        0.604

INDEX 1 = truck_out  INDEX 2 = i1
```

```
                    y2          y3          y4          y5          y6

f1    .t1                                                         0.768
f1    .t2                   0.904
f1    .t5        0.930                                            0.768
f1    .t6                                           1.817
f1    .t8                               1.152
f1    .t10                                                        1.861
f1    .t12       0.151

         +          y7          y8

f1    .t4        1.861
f1    .t11                  0.768

INDEX 1 = truck_out  INDEX 2 = i3

                    y4          y5          y6          y8

f1    .t1        2.448       2.791
f1    .t3                   0.798
f1    .t5        2.791                   1.861       0.768
f1    .t6        0.627
f1    .t8                                           0.620
f1    .t9                                           0.783
f1    .t10                                          2.558
f1    .t11                                          0.620

INDEX 1 = truckCOOL_own  INDEX 2 = i1

                    y1          y2          y3          y4          y5

f1    .t1        0.261
f1    .t2                               0.205
f1    .t3                                                         0.987
f1    .t4                   1.412                   2.791
f1    .t5                                           1.152
f1    .t7                               0.157
f1    .t12       0.505

         +          y6          y7          y8

f1    .t1                   0.768       0.174
f1    .t2                   0.768
f1    .t3        0.174
f1    .t4        0.554
f1    .t5                   0.174
f1    .t6                               1.124
f1    .t8                   0.174
f1    .t9        0.768
f1    .t12                  0.114

INDEX 1 = truckCOOL_own  INDEX 2 = i3

                    y2          y3          y5          y6          y7

f1    .t1                                           0.794       0.620
f1    .t2                                           2.481       0.620
f1    .t5                   1.241
f1    .t6        0.232                                          0.620
f1    .t9                                                       0.041
f1    .t10       0.261                   1.412       0.174       0.620
f1    .t12       0.014

         +          y8

f1    .t5        0.174
f1    .t8        0.768

INDEX 1 = truckCOOL_out  INDEX 2 = i1

                    y1          y2          y3          y4          y5

f1    .t1                   1.152
f1    .t2                                                         1.152
f1    .t3        0.272                                  0.114
f1    .t5                   0.261
f1    .t6        1.010                                            0.170
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f1    .t7                                0.015
f1    .t8        2.791

         +          y6          y7

f1    .t5        0.620
f1    .t9        0.174       0.146
f1    .t10       1.388

INDEX 1 = truckCOOL_out  INDEX 2 = i3

                   y1          y2          y3          y4          y6

f1    .t1                                 0.505       0.228       1.861
f1    .t2        3.722                                            0.174
f1    .t3                                                         0.620
f1    .t4                   0.930
f1    .t6                   1.028
f1    .t7                                 0.065
f1    .t9                                                         0.620
f1    .t10                  0.930       1.515
f1    .t12       0.522

         +          y7          y8

f1    .t1                   0.620
f1    .t2        0.174
f1    .t6        0.768       0.464
f1    .t8                   1.861
f1    .t9        0.181
f1    .t12       0.408

INDEX 1 = truck_XL_own  INDEX 2 = i1

                   y1          y2          y3          y4          y7

f1    .t1        0.582
f1    .t3                               0.960
f1    .t5                   0.720       2.326
f1    .t8                                                         0.480
f1    .t10                              2.295
f1    .t11       0.316
f1    .t12       0.765       0.039                   0.159       0.765

         +          y8          y9         y10         y11         y12

f1    .t1                   1.336       1.336       1.336       1.336
f1    .t2                   1.336       1.336       1.336       1.336
f1    .t3                   1.336       1.336       1.336       1.336
f1    .t4        0.480      1.336       1.336       1.336       1.336
f1    .t5                   1.336       1.336       1.336       1.336
f1    .t6                   1.336       1.336       1.336       1.336
f1    .t7                   1.336       1.336       1.336       1.336
f1    .t8                   1.336       1.336       1.336       1.336
f1    .t9                   1.336       1.336       1.336       1.336
f1    .t10                  1.336       1.336       1.336       1.336
f1    .t11                  1.336       1.336       1.336       1.336
f1    .t12                  1.336       1.336       1.336       1.336

         +         y13         y14         y15

f1    .t1        1.336       1.336       1.336
f1    .t2        1.336       1.336       1.336
f1    .t3        1.336       1.336       1.336
f1    .t4        1.336       1.336       1.336
f1    .t5        1.336       1.336       1.336
f1    .t6        1.336       1.336       1.336
f1    .t7        1.336       1.336       1.336
f1    .t8        1.336       1.336       1.336
f1    .t9        1.336       1.336       1.336
f1    .t10       1.336       1.336       1.336
f1    .t11       1.336       1.336       1.336
f1    .t12       1.336       1.336       1.336

INDEX 1 = truck_XL_own  INDEX 2 = i3

                   y1          y2          y3          y4          y5
```

```
f1    .t1                                    1.141
f1    .t2                0.734                              1.745
f1    .t3                                                   1.495
f1    .t5                                0.960
f1    .t6                2.076               1.175
f1    .t9         0.183                                     1.858
f1    .t10                                                  1.745

          +          y7          y8

f1    .t1         1.163
f1    .t4                    1.551
f1    .t5         0.388
f1    .t10        0.480

INDEX 1 = truck_XL_own  INDEX 2 = f1

                     y1          y2          y3          y4          y5

airPT .t10        4.250
portPT.t1                    4.250                   4.250
portPT.t2                                4.250                   4.250
portPT.t3                                4.250       4.250
portPT.t4                    4.250                   4.250       4.250
portPT.t5                                                        4.250
portPT.t6                    4.250                   4.250       4.250
portPT.t7                    4.250                               4.250
portPT.t8                                            4.250
portPT.t9                                            4.250       4.250
portPT.t10                   4.250       4.250       4.250       4.250
portPT.t11                   4.250                               4.250
portPT.t12                               4.250       4.250
portFR.t3         1.164
portFR.t4         4.250
portFR.t8         4.250

          +          y6          y7          y8          y9         y10

airPT .t3                                1.938
airPT .t9         4.250
airFR .t7                    4.250
portPT.t1                                            4.250       4.250
portPT.t2                    4.250                   4.250       4.250
portPT.t3                                            4.250       4.250
portPT.t4         4.250                  4.250       4.250       4.250
portPT.t5                                            4.250       4.250
portPT.t6                                4.250       4.250       4.250
portPT.t7                                            4.250       4.250
portPT.t8                                            4.250       4.250
portPT.t9                                            4.250       4.250
portPT.t10                                           4.250       4.250
portPT.t11                                           4.250       4.250
portPT.t12                                           4.250       4.250
portFR.t6                    4.250
portFR.t7                                4.250
portFR.t8                    4.250

          +         y11         y12         y13         y14         y15

portPT.t1         4.250       4.250       4.250       4.250       4.250
portPT.t2         4.250       4.250       4.250       4.250       4.250
portPT.t3         4.250       4.250       4.250       4.250       4.250
portPT.t4         4.250       4.250       4.250       4.250       4.250
portPT.t5         4.250       4.250       4.250       4.250       4.250
portPT.t6         4.250       4.250       4.250       4.250       4.250
portPT.t7         4.250       4.250       4.250       4.250       4.250
portPT.t8         4.250       4.250       4.250       4.250       4.250
portPT.t9         4.250       4.250       4.250       4.250       4.250
portPT.t10        4.250       4.250       4.250       4.250       4.250
portPT.t11        4.250       4.250       4.250       4.250       4.250
portPT.t12        4.250       4.250       4.250       4.250       4.250

INDEX 1 = truck_XL_own  INDEX 2 = airPT

                     y6

portFR.t2         1.356
```

```
INDEX 1 = truck_XL_own  INDEX 2 = airBR

                    y1          y3          y4          y6          y7

j1    .t1        4.250
j1    .t2                                               4.250
j1    .t4                                                           4.250
j1    .t6                   4.250                       4.250
j1    .t10                              4.250
j1    .t11                              4.250

         +          y8

j1    .t3        4.250

INDEX 1 = truck_XL_own  INDEX 2 = portPT

                    y1          y6          y7

airPT .t1                               4.250
airPT .t3        3.086
airFR .t6                   4.250

INDEX 1 = truck_XL_own  INDEX 2 = portBR

                    y1          y2          y3          y4          y5

j1    .t1                                                           4.250
j1    .t2        4.250                                              4.250
j1    .t3        1.164                    4.250                     4.250
j1    .t4                                 4.250
j1    .t5        4.250       4.250
j1    .t6                                             4.250
j1    .t7                                 4.250       4.250       4.250
j1    .t8                                             4.250       4.250
j1    .t9                                             4.250
j1    .t10                                                          4.250
j1    .t11                   4.250       4.250
j1    .t12                   4.250                                  4.250
airBR .t5                               4.250
airBR .t6                               4.250
airBR .t11                                          4.250
airBR .t12                                          4.250

         +          y6          y7          y9         y10         y11

j1    .t1                               4.250                     4.250
j1    .t2                   3.891                                 4.250
j1    .t3        4.250                  4.250                     4.250
j1    .t4        4.250                  4.250       4.250       4.250
j1    .t5        4.250                  4.250       4.250
j1    .t6                   4.250       4.250                     4.250
j1    .t7                                         4.250
j1    .t9                                         4.250
j1    .t10                              4.250                     4.250
j1    .t11                                        4.250       4.250
j1    .t12                              4.250

         +         y12         y13         y14         y15

j1    .t1        4.250       4.250
j1    .t3        4.250                  4.250       4.250
j1    .t4                   4.250
j1    .t5                               4.250       4.250
j1    .t6                   4.250                   4.250
j1    .t7        4.250                              4.250
j1    .t8        4.250       4.250       4.250
j1    .t9        4.250       4.250       4.250       4.250
j1    .t10                  4.250       4.250       4.250
j1    .t11       4.250
j1    .t12       4.250       4.250

INDEX 1 = truck_XL_out  INDEX 2 = i1

                    y1          y2          y4          y6          y7

f1    .t3        0.336                                  0.480
f1    .t4                                                           0.480
```

```
f1    .t8        0.720                  1.745
f1    .t10                  0.720

INDEX 1 = truck_XL_out  INDEX 2 = i3

                    y1          y2          y3          y7          y8

f1    .t1                   0.582
f1    .t2        0.720
f1    .t4                                              0.388
f1    .t5                                                          0.388
f1    .t6        0.510
f1    .t8        0.582
f1    .t10                              0.765
f1    .t11       0.255

INDEX 1 = truck_XL_out  INDEX 2 = f1

                    y1          y7          y8

airPT .t4                   4.250
portPT.t3        3.086
portPT.t12                  4.250
portFR.t9                             4.250
portFR.t10                  4.250       4.250

INDEX 1 = truck_XL_out  INDEX 2 = airBR

                    y1          y7

j1    .t1                   4.250
j1    .t10       4.250

INDEX 1 = truck_XL_out  INDEX 2 = portBR

                    y1          y6          y7          y8

j1    .t1                   4.250
j1    .t2                               0.359
j1    .t4                                           4.250
j1    .t5                                           4.250
j1    .t6        4.250
j1    .t7                                           4.250

INDEX 1 = truckCOOL_XL_own  INDEX 2 = i1

                    y1          y2          y3          y4          y5

f1    .t1        0.720
f1    .t2                   0.051       1.826
f1    .t3                                                      0.140
f1    .t4                                           0.163
f1    .t5                               0.217       0.582
f1    .t6                                           0.110
f1    .t8                                           0.163
f1    .t11       0.071

         +          y6          y7          y8          y9         y10

f1    .t1                               0.480       0.071       0.071
f1    .t2                               1.272       0.071       0.071
f1    .t3                                           0.071       0.071
f1    .t4        0.097       0.109                  0.071       0.071
f1    .t5                                           0.071       0.071
f1    .t6                               0.066       0.071       0.071
f1    .t7                                           0.071       0.071
f1    .t8                                           0.071       0.071
f1    .t9                                           0.071       0.071
f1    .t10                                          0.071       0.071
f1    .t11                              1.272       0.071       0.071
f1    .t12                                          0.071       0.071

         +         y11         y12         y13         y14         y15

f1    .t1        0.071       0.071       0.071       0.071       0.071
f1    .t2        0.071       0.071       0.071       0.071       0.071
f1    .t3        0.071       0.071       0.071       0.071       0.071
f1    .t4        0.071       0.071       0.071       0.071       0.071
```

```
f1    .t5        0.071       0.071       0.071       0.071       0.071
f1    .t6        0.071       0.071       0.071       0.071       0.071
f1    .t7        0.071       0.071       0.071       0.071       0.071
f1    .t8        0.071       0.071       0.071       0.071       0.071
f1    .t9        0.071       0.071       0.071       0.071       0.071
f1    .t10       0.071       0.071       0.071       0.071       0.071
f1    .t11       0.071       0.071       0.071       0.071       0.071
f1    .t12       0.071       0.071       0.071       0.071       0.071

INDEX 1 = truckCOOL_XL_own  INDEX 2 = i3

                    y1          y2          y3          y4          y5

f1    .t1                     0.163       0.255                   0.582
f1    .t3                                 3.102
f1    .t4                                                 1.301
f1    .t6                                                         0.468
f1    .t7                                 0.033
f1    .t9                                                         0.438
f1    .t10                    1.745
f1    .t11       0.765
f1    .t12                    0.031                   0.044

         +          y6          y7          y8

f1    .t2                                 0.388
f1    .t5                                 1.163
f1    .t6                                 0.234
f1    .t8        0.388       1.163
f1    .t9                                 0.186

INDEX 1 = truckCOOL_XL_own  INDEX 2 = f1

                    y1          y2          y3          y4          y5

airPT .t3                     4.250
airFR .t1        4.250
portPT.t1                                 4.250                   4.250
portPT.t2        4.250       4.250                   4.250
portPT.t3                                                         4.250
portPT.t4                                 4.250
portPT.t5                     4.250       4.250       4.250
portPT.t6                                 4.250
portPT.t7                                 4.250       4.250
portPT.t8                                 4.250                   4.250
portPT.t9                     4.250       4.250
portPT.t11       4.250                    4.250       4.250
portPT.t12       4.250       4.250                               4.250
portFR.t5        4.250
portFR.t7        4.250
portFR.t8                     4.250
portFR.t9        4.250

         +          y6          y7          y8

airPT .t1                                 4.250
airPT .t2        4.250
portPT.t1        4.250       4.250
portPT.t3                     4.250
portPT.t6        4.250
portPT.t7        4.250
portPT.t8                                 4.250
portPT.t9                     4.250
portPT.t11       4.250
portFR.t3        4.250
portFR.t5        4.250       4.250
portFR.t8        4.250
portFR.t10       4.250
portFR.t12       4.250                    4.250

INDEX 1 = truckCOOL_XL_own  INDEX 2 = airPT

                    y2          y6

portPT.t9                     4.250
portFR.t3        4.250

INDEX 1 = truckCOOL_XL_own  INDEX 2 = airBR
```

```
                    y1          y3          y4          y8

j1    .t2                                 4.250
j1    .t3        3.086
j1    .t5                   4.250
j1    .t12                                4.250
portBR.t1                                             4.250

INDEX 1 = truckCOOL_XL_own  INDEX 2 = portBR

                    y1          y2          y3          y4          y5

j1    .t1                   4.250       4.250       4.250
j1    .t2                   4.250       4.250
j1    .t3                   4.250                   4.250
j1    .t4        4.250      4.250                   4.250       4.250
j1    .t5                                           4.250       4.250
j1    .t6                   4.250                               4.250
j1    .t7        4.250      4.250
j1    .t8        4.250      4.250       4.250
j1    .t9        4.250      4.250       4.250                   4.250
j1    .t10                  4.250       4.250
j1    .t11       4.250                                          4.250
j1    .t12                                4.250
airBR .t2                                             4.250
airBR .t10                                            4.250

         +          y6          y7          y8          y9         y10

j1    .t1                                                       4.250
j1    .t2                                               4.250   4.250
j1    .t3                                                       4.250
j1    .t6                                                       4.250
j1    .t7        4.250                                  4.250
j1    .t8        4.250      4.250       4.250       4.250       4.250
j1    .t9        4.250      4.250       4.250       4.250
j1    .t10       4.250      4.250       4.250                   4.250
j1    .t11       4.250      4.250       4.250       4.250
j1    .t12       4.250      4.250       4.250                   4.250
airBR .t2        1.356

         +         y11         y12         y13         y14         y15

j1    .t1                                               4.250   4.250
j1    .t2                   4.250       4.250       4.250       4.250
j1    .t3                               4.250
j1    .t4                   4.250                   4.250       4.250
j1    .t5        4.250      4.250       4.250
j1    .t6                   4.250                   4.250
j1    .t7        4.250                  4.250       4.250
j1    .t8        4.250                                          4.250
j1    .t9        4.250
j1    .t10                  4.250
j1    .t11                              4.250       4.250       4.250
j1    .t12       4.250                              4.250       4.250

INDEX 1 = truckCOOL_XL_out  INDEX 2 = i1

                    y1          y2          y3          y4          y5

f1    .t1                   1.745       0.071
f1    .t2                   0.227                               0.163
f1    .t3                               0.217       0.765
f1    .t5                                           0.163
f1    .t6        0.143                              0.485
f1    .t9        0.051                                          0.123
f1    .t10                              0.214

         +          y6          y7          y8

f1    .t1                   0.109
f1    .t2                   1.163       0.480
f1    .t4        1.467
f1    .t5        0.109      1.643
f1    .t8        0.588      0.388
f1    .t10                  0.109       0.106
```

```
INDEX 1 = truckCOOL_XL_out  INDEX 2 = i3

                    y1          y2          y3          y4          y5

f1    .t1        1.745                   0.765                   0.163
f1    .t2        0.163                                           0.582
f1    .t3                                                0.316
f1    .t5                    1.745
f1    .t6        1.530
f1    .t8        0.163
f1    .t10                                                        0.582
f1    .t12                                               0.672

         +          y7          y8

f1    .t4                    0.109
f1    .t6        1.272
f1    .t8                    0.109

INDEX 1 = truckCOOL_XL_out  INDEX 2 = f1

                    y1          y7          y8

airPT .t3                               2.312
portPT.t5                               4.250
portPT.t11                 4.250
portFR.t2                               4.250
portFR.t6          4.250
portFR.t11                              4.250

INDEX 1 = truckCOOL_XL_out  INDEX 2 = airBR

                    y7

j1    .t7          4.250

INDEX 1 = truckCOOL_XL_out  INDEX 2 = portBR

                    y1          y7          y8

j1    .t1                               4.250
j1    .t2                               4.250
j1    .t3                    4.250
j1    .t5                    4.250
j1    .t6                               4.250
j1    .t12         4.250

INDEX 1 = plane  INDEX 2 = airPT

                    y1          y6          y8

airBR .t1                               0.850
airBR .t2                  0.579
airBR .t3          0.617

INDEX 1 = plane  INDEX 2 = airFR

                    y1          y6

airBR .t1          0.850
airBR .t6                  0.850

INDEX 1 = planeCOOL  INDEX 2 = airPT

                    y1          y7          y8

airBR .t1                  0.850
airBR .t3                               0.850
airBR .t4                  0.850
airBR .t10         0.850

INDEX 1 = planeCOOL  INDEX 2 = airFR

                    y7

airBR .t7          0.850

INDEX 1 = boat  INDEX 2 = portUS
```

```
                    y1

portBR.t4         0.213

INDEX 1 = boat  INDEX 2 = portPT

                    y1          y2          y3          y4          y5

portBR.t1                     0.213       0.213       0.213       0.213
portBR.t2         0.213       0.213       0.213       0.213       0.213
portBR.t3                                 0.213       0.213       0.213
portBR.t4                     0.213       0.213       0.213       0.213
portBR.t5                     0.213       0.213       0.213       0.213
portBR.t6                     0.213       0.213       0.213       0.213
portBR.t7                     0.213       0.213       0.213       0.213
portBR.t8                                 0.213       0.213       0.213
portBR.t9                                 0.213       0.213       0.213
portBR.t10                    0.213       0.213       0.213       0.213
portBR.t11                    0.213       0.213       0.213       0.213
portBR.t12        0.213       0.213       0.213       0.213       0.213

          +          y6          y7          y8          y9         y10

portBR.t1                                                 0.213       0.213
portBR.t2                                                 0.213       0.213
portBR.t3                                                 0.213       0.213
portBR.t4         0.213                                   0.213       0.213
portBR.t5                                                 0.213       0.213
portBR.t6                                                 0.213       0.213
portBR.t7                                                 0.213       0.213
portBR.t8                                       0.213     0.213       0.213
portBR.t9                                                 0.213       0.213
portBR.t10                                                0.213       0.213
portBR.t11        0.213                                   0.213       0.213
portBR.t12                                                0.213       0.213
portFR.t11                    0.213

          +         y11         y12         y13         y14         y15

portBR.t1         0.213       0.213       0.213       0.213       0.213
portBR.t2         0.213       0.213       0.213       0.213       0.213
portBR.t3         0.213       0.213       0.213       0.213       0.213
portBR.t4         0.213       0.213       0.213       0.213       0.213
portBR.t5         0.213       0.213       0.213       0.213       0.213
portBR.t6         0.213       0.213       0.213       0.213       0.213
portBR.t7         0.213       0.213       0.213       0.213       0.213
portBR.t8         0.213       0.213       0.213       0.213       0.213
portBR.t9         0.213       0.213       0.213       0.213       0.213
portBR.t10        0.213       0.213       0.213       0.213       0.213
portBR.t11        0.213       0.213       0.213       0.213       0.213
portBR.t12        0.213       0.213       0.213       0.213       0.213

INDEX 1 = boat  INDEX 2 = portFR

                    y1          y2          y6          y7          y8

portUS.t4         0.213
portBR.t2                                 0.068                   0.213
portBR.t3         0.058       0.213       0.213
portBR.t5         0.213
portBR.t6         0.213                                 0.213       0.213
portBR.t8                     0.213       0.213       0.213
portBR.t9         0.213
portBR.t10                                            0.213
portBR.t11                                            0.213       0.213

INDEX 1 = boatCOOL  INDEX 2 = portUS

                    y7

portBR.t5         0.213

INDEX 1 = boatCOOL  INDEX 2 = portPT

                    y1          y2          y6          y7          y8

portBR.t1                                 0.213
```

```
portBR.t2                                          0.213
portBR.t3                                          0.213
portBR.t4                                                      0.213
portBR.t7                                0.213
portBR.t9                    0.213       0.213
portBR.t11       0.213
portBR.t12                                         0.213
portFR.t5                                                      0.213
portFR.t6                                                      0.213
portFR.t9                                          0.213

INDEX 1 = boatCOOL  INDEX 2 = portFR

                     y1          y6          y7          y8

portUS.t5                                0.213
portBR.t5                    0.213                 0.213
portBR.t7        0.213                             0.213
portBR.t8        0.213
portBR.t9                                0.213       0.213
portBR.t10                   0.213                 0.213
portBR.t12                   0.213                 0.213


----   1219 VARIABLE manuf_var_cost.L  Variable costs of manufacturing

y1  2533561.871,    y2  2531323.894,    y3  3147322.076,    y4  2663263.600
y5  2537311.783,    y6  2043423.143,    y7  1929019.090,    y8  1933563.185
y9  1930383.669,    y10 1930383.669,    y11 1930383.669,    y12 1930383.669
y13 1930383.669,    y14 1930383.669,    y15 1930383.669


----   1219 VARIABLE transp_var_cost.L  Variable costs of transportation

y1  2.048400E+7,    y2  8351965.487,    y3  6145249.158,    y4  7727732.560
y5  6903306.480,    y6  1.302798E+7,    y7  2.461162E+7,    y8  2.767630E+7
y9  4538893.705,    y10 4538893.705,    y11 4538893.705,    y12 4538893.705
y13 4538893.705,    y14 4538893.705,    y15 4538893.705


----   1219 VARIABLE store_var_cost.L  Variable costs of storage

y1 1.720769E+7,    y2 2.934196E+7,    y3 3.093268E+7,    y4 2.983426E+7
y5 3.078463E+7,    y6 2.515385E+7,    y7 1.368462E+7,    y8 1.061538E+7


----   1219 VARIABLE vNPV.L                =  -7.62307E+8  Expected Profit

**** REPORT FILE SUMMARY

result /var/lib/condor/execute/dir_3160616/result.put


EXECUTION TIME       =        5.242 SECONDS    794 MB  24.9.2 r64480 LEX-LEG


USER: Small MUD - 5 User License                     G170411/0001AS-LNX
      University of Wisconsin-Madison, Computer Sciences Dept.   DC8499
      License for teaching and research at degree granting institutions


**** FILE SUMMARY

Input      /var/lib/condor/execute/dir_3160616/MODEL.gms
Output     /var/lib/condor/execute/dir_3160616/solve.out
```