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! Keywords: Airlines / Communications / Distribution / Geographic / !Network / !Petroleum
Industry / Scheduling / Shipping / Shortest Route ! / Transportation;
! LINDO format Fleet routing with a single plane type; ! We want to schedule planes to
cover the following! schedule of 11 flights that repeats every day.
! See the text Optimization Modeling with LINGO for more details.!
Time! Flight Depart Arrive Depart Arrive! 1 221 ORD DEN 0800 0934! 2 223 ORD
DEN 0900 1039! 3 274 LAX DEN 0800 1116! 4 105 ORD LAX 1100 1314!
5 228 DEN ORD 1100 1423! 6 230 DEN ORD 1200 1521! 7 259 ORD LAX
1400 1609! 8 293 DEN LAX 1400 1510! 9 412 LAX ORD 1400 1959! 10 766
LAX DEN 1600 1912! 11 238 DEN ORD 1800 2121!! Minimize number of planes
on ground overnight;MIN GC2400 + GD2400 + GL2400 ST! The plane (old) conservation
constraints;! Chicago at 8 am, sources - uses = 0; + GC2400 - F221 - F223 - F105 - F259 -
GC1400 = 0! Chicago at midnight; GC1400 + F228 + F230 + F412+ F238 - GC2400 = 0! Denver at
11 am; GD2400 + F221 + F223 - F228 - GD1100 = 0! Denver at high noon; GD1100 + F274 - F230
- F293 - F238 - GD1800 = 0! Denver at midnight; GD1800 + F766 - GD2400 = 0! LA at 8 am;
GL2400 - F274 - GL0800 = 0! LA at 1400; GL0800 + F105 - F412 - GL1400 = 0! LA at 1600;
GL1400 + F293 - F766 - GL1600 = 0! LA at midnight; GL1600 + F259 - GL2400 = 0! Cover our
flights constraints; F221 = 1 F223 = 1 F274 = 1 F105 = 1 F228 = 1 F230 = 1 F259 = 1 F293 =
1 F412 = 1 F766 = 1 F238 = 1END

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