

! Keywords: Demand Backlog / Distribution / Inventory / Network / Product Management /  
Production / Reorder Point / Shipping / Transportation / Geographic;

! Path formulation of a multi-level distribution problem;

MIN  $6 AX1 + 7 AX2 + 8 AY2 + 9 AY3 + 8 BX1 + 10 BY1$   
 $+ 7 BY2 + 8 BY3 + 10 BZ2 + 9 BZ3 + 6 BZ4$

SUBJECT TO

2)  $AX1 + AX2 + AY2 + AY3 = 9$

3)  $BX1 + BY1 + BY2 + BY3 + BZ2 + BZ3 + BZ4 = 8$

4)  $AX1 + BX1 + BY1 = 3$

5)  $AX2 + AY2 + BY2 + BZ2 = 5$

6)  $AY3 + BY3 + BZ3 = 4$

7)  $BZ4 = 5$

END