Assignment 1

Economic Feasibility

You are asked to conduct a five-year (Year 0 to Year 4) economic feasibility study. Based on project schedule, you conclude that the system will not be in operation during the current year (Year 0). Once the system is operational in the following year (i.e. Year 1), you expect annual increased sales of $50,000 and inventory cost reduction of $14,000. You also estimate that the system benefit will increase $3,000 annually (from the previous year) from Year 2 through Year 4.

New computer costs $10,000 and the development cost is estimated at $77,500. The software license renewal and supplies will be $23,000 annually from Year 1 on. The initial personnel cost (incurred in Year 1) for hiring and training operators is $12,000, which will increase annually at a rate of 4% thereafter.

- The discount rate is 7%. Is there a break-even point in the five-year time horizon? If so, when? What is the ROI for the project?
- Use the Goal Seek function or Solver from the Excel Tools menu, find out up to how high the initial personnel cost can be so that the NPV still remains positive.