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DIMENSION Record(500)
!Control parameters:
  Num_Computes=500          !Repeat count for computation
  Num_Reads=35               !Number of records read
  Num_Writes=40              !Number of records written
  Num_Iterations=1000         !Repeat count for the experiment
!Open files:
  OPEN(UNIT=1,NAME='In.dat',TYPE='Old',
  1FORM='Unformatted',ACCESS='Direct')
  OPEN(UNIT=2,NAME='Out.dat',TYPE='New',
  1FORM='unformatted',ACCESS='Direct')
  CALL Get_Time(CPU1,Elapsed1) !Record starting time

  DO 500 Iteration=1,Num_Iterations

!Perform a number of read I/Os
  DO 100 i=1,Num_Reads
    READ(1'i),Record
100  CONTINUE
!Do computation
  DO 200 j=1,Num_Computes
  DO 200 i=1,500
200  Record(i)=i + i + i*i + i*i*i
!Perform a number of write I/Os
  DO 300 i=1,Num_Writes
    WRITE(2'i).Record
300  CONTINUE
500  CONTINUE
  CALL Get_Time(CPU2,Elapsed2) !Get ending time
!Close files:
  CLOSE(UNIT=1)
  CLOSE(UNIT=2)
  CPU_Time=(CPU2-CPU1)/Num_Iterations
  Elapsed_Time=(Elapsed2-Elapsed1)/Num_Iterations
  TYPE *, 'CPU time per iteration is ',CPU_Time
  TYPE *, 'Elapsed time per iteration is ',Elapsed_Time
  STOP
END

```

An example @ Synthesis Workload generation program

ECE560 (L#2)