

Program Name: **tt1st**

Language: SAS

Objective: Determining the critical interval and the power of the one-sample (paired) *t*-test for equivalence

*Input:*

ALPHA      significance level  
TOL        tolerance for the numerical approximation error  
ITMAX      maximum number of iteration steps  
N           sample size  
THETA1     left-hand limit of the equivalence range for  $\delta/\sigma_D$   
THETA2     right-hand " " " " " " " " " " " " " "

*Output:*

ALPHA      value read from input file  
N           " " " " " " "  
THETA1     " " " " " " "  
THETA2     " " " " " " "  
IT           number of iteration steps carried out  
C1           left-hand limit of the optimal critical interval  
C2           right-hand " " " " " " " " " " " "  
ERR1        effective difference between the rejection probability at the left-hand  
              boundary of the equivalence range and the target significance level  
              ALPHA [ = . <=> difference is computed to be smaller in absolute value  
              than the smallest positive real number admitting a representation as a  
              numeric constant in SAS]  
ERR2        analogue to ERR1 referring to the right-hand boundary of the equivalence  
              range [for the meaning of ERR2=. see explanation on ERR1]  
POW0        power against the alternative THETA = 0 [ <=>  $\delta = 0$  ]