

Program Name: **gofsimpt**

Language: SAS

Objective: Establishing goodness of fit of an observed to a fully specified multinomial distribution, computation of the test statistic and its critical bound

Input:

ALPHA	significance level
N	sample size
K	number of different categories
EPS	maximum tolerable distance between true and prespecified vector of cell probabilities
PATH	full pathname of the file containing the observed cell counts and the probabilities specified under the model to be established (in that order)

Output:

ALPHA	cf. input list
EPS	" " " "
N	" " " "
X1,X2,...	observed cell counts as read from the input file
PI01,PI02,...	prespecified cell probabilities as read from the input file
DSQPIH_0	observed squared distance between estimated and prespecified cell probabilities
VN_N	estimated squared standard error of the random variable behind $N^{1/2} \times \text{DSQPIH}_0$
CRIT	critical upper bound to which DSQPIH_0 must be compared
REJ	indicator of the decision to be taken [REJ=1 <=> rejection of the null hypothesis of marked departures from the model; REJ=0 <=> acceptance of H]