

SUBROUTINE OPARST

Description

This subroutine computes the statistics of the population which searches the feasible parameter space.

Calling Sequence

CALL OPARST (NOPT, NPT, BOUND, X, XMAX, XMIN, XMEAN, XNSTD, GNRNG, IPCNVG)

Argument List

| <u>Variable</u> | <u>Input/<br/>Output</u> | <u>Type</u> | <u>Dimension</u> | <u>Description</u>   |
|-----------------|--------------------------|-------------|------------------|--|
| NOPT            | Input                    | I           | 1                | Number of parameters to be optimized.  |
| NPT             | Input                    | I           | 1                | Number of points in current population.  |
| BOUND           | Input                    | R           | NOPT             | Array specifies the range between lower bound and upper on each parameter.       |
| X               | Input                    | R           | NOPT*NPT         | Matrix which holds every point in current population.                            |
| XMAX            | Output                   | R           | 16               | Array that holds maximum values of each parameter.                               |
| XMIN            | Output                   | R           | 16               | Array that holds minimum values of each parameter.                               |
| XMEAN           | Output                   | R           | 16               | Array that holds mean values of each parameter.                                  |
| XNSTD           | Output                   | R           | NOPT             | Normalized standard deviation of current population in each parameter direction. |
| GNRNG           | Output                   | R           | 1                | Normalized geometric mean of parameter range.                                    |
| IPCNVG          | Output                   | I           | 1                | Parameter convergence flag.  |