| **Name** | **Description** | **Arguments** | **Uses** |
| --- | --- | --- | --- |
| ACEN | Calculates X and Y coordinates of the point at the center of the rectangle that bounds the keypoints attached to the selected areas. | arg1: *xcParmName*  name of the parameter (STR) to which the X coordinate will be assigned  arg2: *ycParmName*  name of the parameter (STR) to which the Y coordinate will be assigned | NBACKUP  NRESTORE |
| ARR2PTH | Puts values of an array into the active path under a given label. | arg1: *valueArrName*  name of the 1-D array parameter containing the values  arg2: *itemName*  label for these values in the path definition  arg3: *tableColIndex*  number of the column at which the values will be placed in the path table | ARR2PTH |
| CLIMS | Sets scale limits for contour display. | arg1: *minContour*  minimum value for contour scale  arg2: *maxContour*  maximum value for contour scale  arg3: *greyExceeding*  controls coloring of values outside min/max limits:  0 - Values below min are colored BLUE, above min are colored RED  1 - Values below min or above max are colored GREY | - |
| COMPARE | Applies a comparison operator to a selected number of arguments and stores the result in the parameter arg1. | arg1: *parm*  parameter name (string) to which the resulting value will be written  arg2: *oper*  comparison operator (string) to be applied to the numerical values. Available operators:  'MIN' - returns the smallest value (signed)  'MAX' - returns the largest value (signed)  'MEAN' - returns the mean of all values  'SUM' - returns the sum of all values  'ABSMAX' - returns the largest absolute value  'ABSMIN' - returns the smallest absolute value  'SABSMAX' - use ABS to calculate MAX, but return signed value  'SABSMIN' - use ABS to calculate MIN, but return signed value  arg3: *argCount*  number of arguments to be included in the comparison  arg4-ar19: *num1*-*num15*  numerical values to be compared | - |
| CPATH | Creates a circular path of a given radius centered about given X and Y coordinates. | arg1: *xCenter*  X coordinate of circular path's center  arg2: *yCenter*  Y coordinate of circular path's center  arg3: *radius*  path radius | - |
| DSPNDIST | Calculates the distance between a node's displaced position (in the X-Y plane) and a reference point defined by given X and Y coordinates. Reference point coordinates must be relative to the active CSYS/RSYS. | arg1: *parm*  name of the parameter (STR) to which the distance will be attributed  arg2: *nodeNum*  number of the node for which displaced distance will be calculated  arg3: *xOffset*  X coordinate of the reference point  arg4: *yOffset*  Y coordinate of the reference point | - |
| ENDPNG | Reverts display to default device, closing PNG file opened by 'GO2PNG' subroutine. | arg1: *name*  name of the image file generated | - |
| GO2PNG | Redirects output to PNG file. Must be followed by 'ENDPNG' to complete image capture. | arg1: *res*  image resolution (default = 2400)  arg2: *VectorMode*  activates (1) or deactivates (0) vector mode for plot capture | - |
| NBACKUP | Creates a node named selection component to serve as a backup of currently selected nodes. Usually followed by 'NRESTORE' command to restore backed up nodal selection. | - | - |
| NRESTORE | Selects nodes stored in named node selection component created by 'NBACKUP'. | - | - |
| PTH2ARR | Transfers values from one of the current PATH'S columns (LABEL) to an ARRAY. | arg1: *itemLabel*  label of path column containing desired result  arg2: *outputParm*  name of the output parameter (defaults to ‘PTH2ARR\_ARR\_output’) | - |
| TAKEPIC | Captures the image currently displayed on the screen. Resolution, file name, vector display and file format can be set using the arguments. | arg1: *FileName*  name of the output file  arg2: *FileSize*  image resolution (default = 2400)  arg3: *VectorMode*  vector display (wireframe):  0 - No change  1 - Force wireframe  2 - Force raster  arg4: *graphMode*  graphical display type (command /graphics):  0 - No change  1 - FULL  2 - PowerGraphics  arg5: *fileExt*  image file format  0 - PNG  1 - JPEG | - |