

## SUBROUTINE SFBDRV

### Description

This routine is the driver for computation of HRAP grid segments within a basin.

### Calling Sequence

CALL SFBDRV (X, Y, FLAT, FLON, IY, IXB, IXE, MSEGS, NBPTS, LFACTR,  
AREA, UAREA, CAREA, XC, YC, UNITS, NSEGS, ISTAT)

### Argument List

<u>Argument</u>	<u>Input/ Output</u>	<u>Type</u>	<u>Dimension</u>	<u>Description</u>
X	O	R*4	NBPTS	Array of polar stereographic X coordinates
Y	O	R*4	NBPTS	Array of polar stereographic Y coordinates
FLAT	I	R*4	NBPTS	Array of latitude values (decimal degrees)
FLON	I	R*4	NBPTS	Array of longitude values (decimal degrees)
IY	O	I*4	MSEGS	Array of rows of grid points within defined basin
IXB	O	I*4	MSEGS	Array of columns of leftmost grid points within defined basin
IXE	O	I*4	MSEGS	Array of columns of rightmost grid points within defined basin
MSEGS	I	I*4	1	Maximum number of grid segments
NBPTS	I	I*4	1	Number of basin boundary points
LFACTR	O	I*4	1	Density factor for the grid point definition
AREA	I	R*4	1	User specified basin area
UAREA	I	R*4	1	User specified basin area in KM2
CAREA	O	R*4	1	Computed basin area
XC	O	R*4	1	X coordinate of the area centroid

<u>Argument</u>	<u>Input/ Output</u>	<u>Type</u>	<u>Dimension</u>	<u>Description</u>
YC	O	R*4	1	Y coordinate of the area centroid
UNITS	I	A4	1	Data units code (ENGL or METR)
NSEGS	O	I*4	1	Number of values in arrays IY, IXB and IXE
ISTAT	O	I*4	1	Status code: 0 = normal 1 = error