MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PROJECT MAC

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"PSEG :STANDARDIZATION OF DATA"

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PSEG is a function of one argument--a region name which comes from REGIONLIST, as created by TOPOLOGIST. When it is done, the following data structure exists. *indicates that the data was already stored correctly when PSEG got it.

REGIONLIST is a list of region names created by TOPOLOGIST. On the property list of each region are the following:

	INDICATOR	PROPERTY
1)	TYPE	REGION
*2)	OUTERBOUNDARY	list of dotted coordinates of region's outer boundary
*3)	NUCLEUS	list of dotted coordinates of region's inner boundary
*4)	HOLES	list of names of holes in region
*4a)	holes	list of dotted coordinates of each hole's boundary
*5)	NEIGHBORS	list of names of region's neighbors
6)	SHAPE	l-atom description
7)	VERTS	list of names of vertices of region
8)	SEGS	list of names of segments of region

VERTEXLIST is a list of all vertex names. On the property list of each vertex are the following:

	INDICATOR	PROPERTY
1)	TYPE	VERTEX
2)	POS	dotted coordinates
3)	REGS	list of name of region to which vertex belongs
4)	SEGS	list of names of segments of which vertex is a vertex
5)	ANGLE	angle in radians with respect to inside of region

SEGMENTLIST is a list of all segment names. On the property list of each segment are the following:

	INDICATOR	PROPERTY
1)	TYPE	SEGMENT
2)	REGS	list of name of region to which segment belongs
3)	VERTS	dotted pair of segment's vertex names
4)	LENGTH	length of segment
5)	DIR	$\frac{\Delta Y}{\Delta X}$

PROBLEMS: As of now, PSEG assumes

(a) region has only one boundary

(b) a vertex belongs to only one region

(c) a segment belongs to only one region

SOLUTIONS:

(a) will be taken care of in a new PSEG

(b and c) will be taken care of by later editing routines.