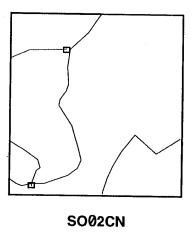
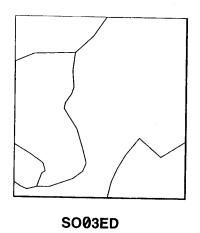
# Making spatial data usable—an overview

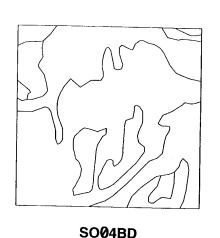
### **■** Identify errors



#### ■ Correct errors



## ■ Reconstruct topology

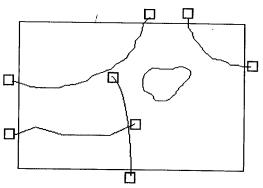


## Identifying and interpreting errors

### ■ Dangling nodes

Attached to *one* arc

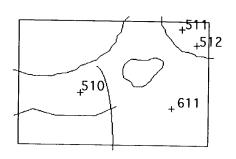
Drawn as squares



#### **■** Too many labels

Arcs surrounding an area that contains more than one label

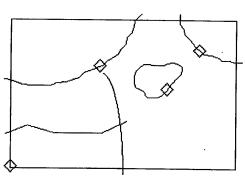
Draws all labels in the polygon with their IDs



#### ■ Pseudo nodes

Attached to two arcs or a loop

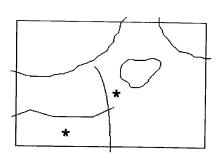
Drawn as diamonds



### ■ Missing labels

Arcs surrounding an area with no label

Asterisk drawn at center of universe polygon

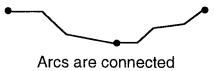


## **Topology and error detection**

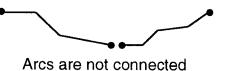
**■** This relationship

■ Helps you detect this kind of error

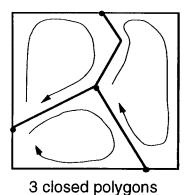
Arcs connect by sharing nodes



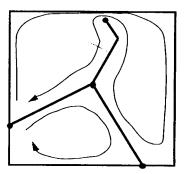
Node errors



Arcs are assembled clockwise into closed polygons

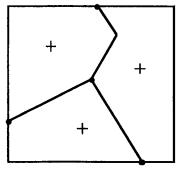


Unclosed polygons



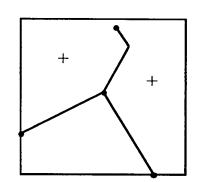
A polygon has been "missed"

Polygons contain one and only one label point



3 labels for 3 polygons

Label errors



This polygon has too many labels