Description of Datasets

1. Title: Image Segmentation data

2. Source Information
   -- Creators: Vision Group, University of Massachusetts
   -- Donor: Vision Group (Carla Brodley, brodley@cs.umass.edu)
   -- Date: November, 1990

3. Past Usage: None yet published

4. Relevant Information:

   The instances were drawn randomly from a database of 7 outdoor
   images. The images were handsegmented to create a classification
   for every pixel.

   Each instance is a 3x3 region.

5. Number of Instances: 2300

6. Number of Attributes: 19 continuous attributes

7. Attribute Information:

    1. region-centroid-col: the column of the center pixel of the region.
    2. region-centroid-row: the row of the center pixel of the region.
    3. region-pixel-count: the number of pixels in a region = 9.
    4. short-line-density-5: the results of a line extractoin algorithm that
        counts how many lines of length 5 (any orientation) with
        low contrast, less than or equal to 5, go through the region.
    5. short-line-density-2: same as short-line-density-5 but counts lines
        of high contrast, greater than 5.
    6. vedge-mean: measure the contrast of horizontally
        adjacent pixels in the region. There are 6, the mean and
        standard deviation are given. This attribute is used as
        a vertical edge detector.
    7. vegde-sd: (see 6)
    8. hedge-mean: measures the contrast of vertically adjacent
        pixels. Used for horizontal line detection.
    9. hedge-sd: (see 8).
    10. intensity-mean: the average over the region of (R + G + B)/3
    11. rawred-mean: the average over the region of the R value.
    12. rawblue-mean: the average over the region of the B value.
    13. rawgreen-mean: the average over the region of the G value.
    14. exred-mean: measure the excess red: (2R - (G + B))
    15. exblue-mean: measure the excess blue: (2B - (G + R))
    16. exgreen-mean: measure the excess green: (2G - (R + B))
    17. value-mean: 3-d nonlinear transformation

of RGB. (Algorithm can be found in Foley and VanDam, Fundamentals
of Interactive Computer Graphics)
18. saturatoin-mean: (see 17)
19. hue-mean: (see 17)

8. Missing Attribute Values: None

9. Class Distribution:

Classes: 1 = brickface,
2 = sky,
3 = foliage,
4 = cement,
5 = window,
6 = path,
7 = grass.