|  |  |
| --- | --- |
| **Image Segmentation Data Set**   **Abstract**: Image data described by high-level numeric-valued attributes, 7 classes |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data Set Characteristics:** | Multivariate | **Number of Instances:** | 2310 | **Area:** | N/A |
| **Attribute Characteristics:** | Real | **Number of Attributes:** | 19 | **Date Donated** | 1990-11-01 |
| **Associated Tasks:** | Classification | **Missing Values?** | No | **Number of Web Hits:** | 144456 |

**Source:**

Creators:   
  
Vision Group, University of Massachusetts   
  
Donor:   
  
Vision Group (Carla Brodley, brodley **'@'** cs.umass.edu)

Link : http://archive.ics.uci.edu/ml/datasets/Image+Segmentation

**Data Set 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.

**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. saturation-mean: (see 17)   
19. hue-mean: (see 17)