Subject: Re: KMean Clustering of RGB Images
Posted by helaha on Wed, 09 May 2007 10:00:42 GMT
View Forum Message <> Reply to Message

> Not sure what you mean by "order of the data points". But any clustering
> algorithm that minimizes a cost function (like k-means) can get trapped
> in a local minimum.

Thank you Mort,
concerning the "order of data points" it is necessary to think about the construction of the RGB Data space. The original RGB image is a 3 dim. array e.g. [3,ImageSizeX, ImageSizeY]. The RGB Data space, which should be clustered concerning only the grey values and without consideration of the pixel locations, has two dimensions e.g. [3, NumberOfPixels ]. Therefore the individual image pixels are transformed in a sequence of RGB triple values ("data points"). The first triple values correspond to the pixel located at [3, 0, 0] e.g. the left bottom corner of the image. If the image is mirrored, rotated ore transposed before RGB space construction, then the first RGB triple value will be altered. Nevertheless all the individual image pixels were transformed into the RGB space, only the sequence is changed.

Thanks,
Helmut