

Research themes considered by Research Assistants

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Compression of CT images – Applying the Hybrid Coding –

1. Background

Recently the use of electric image managing systems have increased in hospitals. Due to the enormous data volume of CT images, these systems need hi-speed LAN (local area networks) to be used efficiently.

2. Idea to solve this problem

We try to use the hybrid coding, which is used in H.264, MPEG2 etc, in order to compress CT images. We have already managed to use this method for multi-camera system, and obtained good results. Since CT images are similar to multi-camera images in terms of continuity of the data, the hybrid coding must be good for CT images compression. The hybrid coding is lossy in general, therefore a modification of the hybrid coder into a lossless compression coder for CT images is necessary.

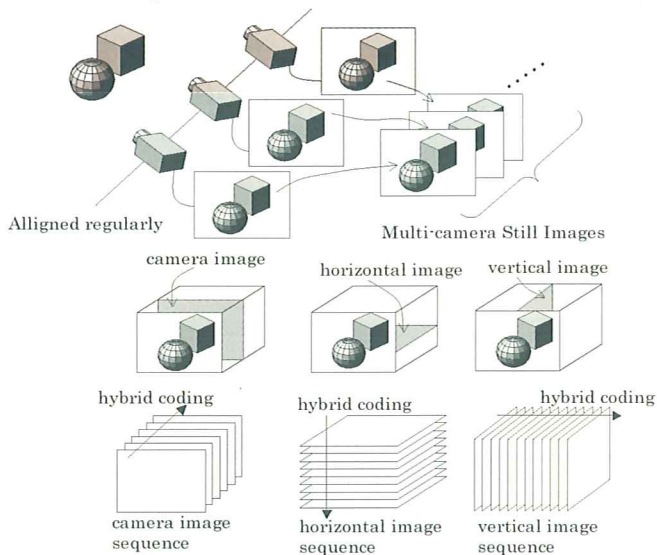


Figure 1. Hybrid coding for multi-camera system

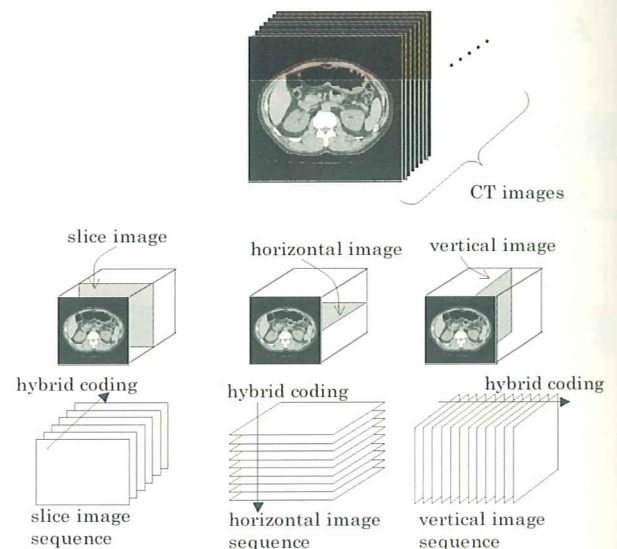


Figure 2. Hybrid coding for CT images