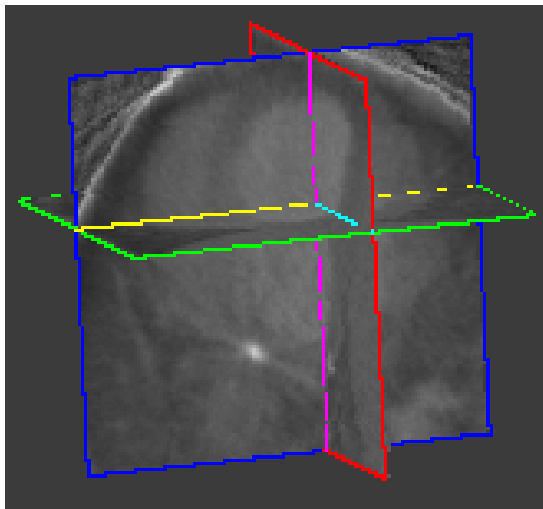


Lossless Motion Compensated 4-D Medical Images Compression

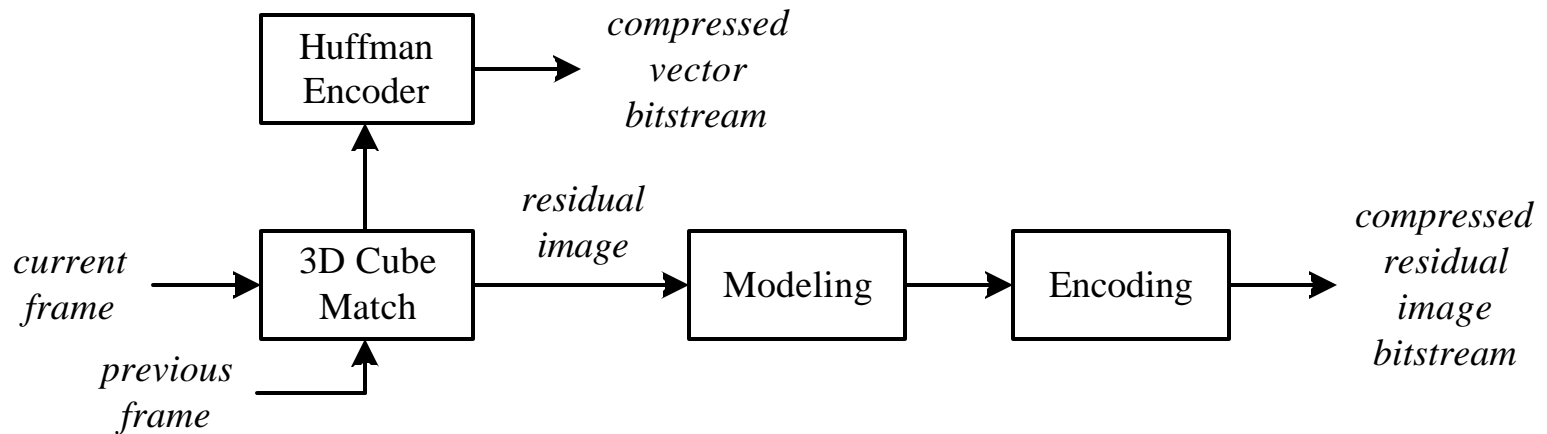


Frame 1

..... Frame N

4-D medical images need to be compressed
losslessly.

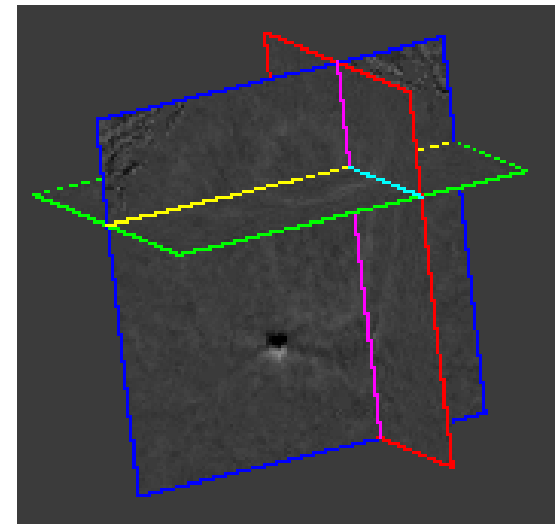
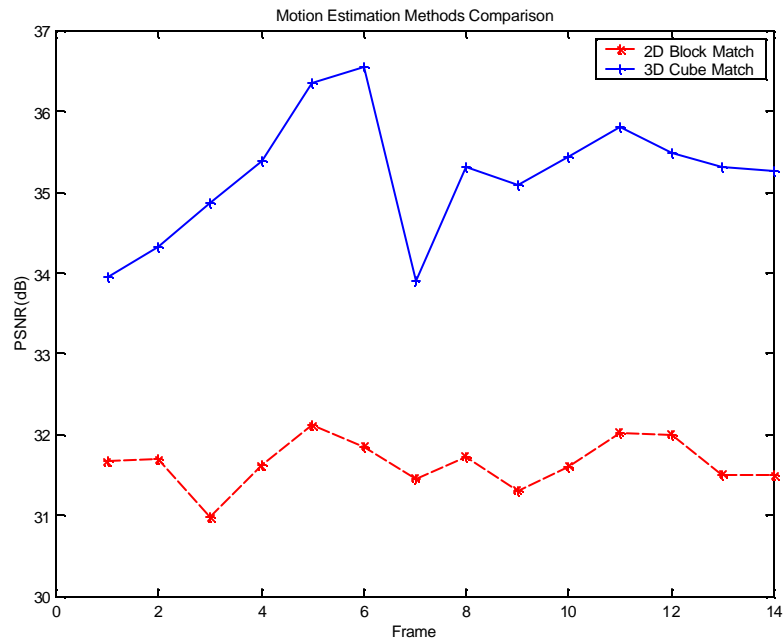
Our Proposed Compression Scheme



Add preprocessing module before the modeling and encoding parts of normal lossless compression scheme.

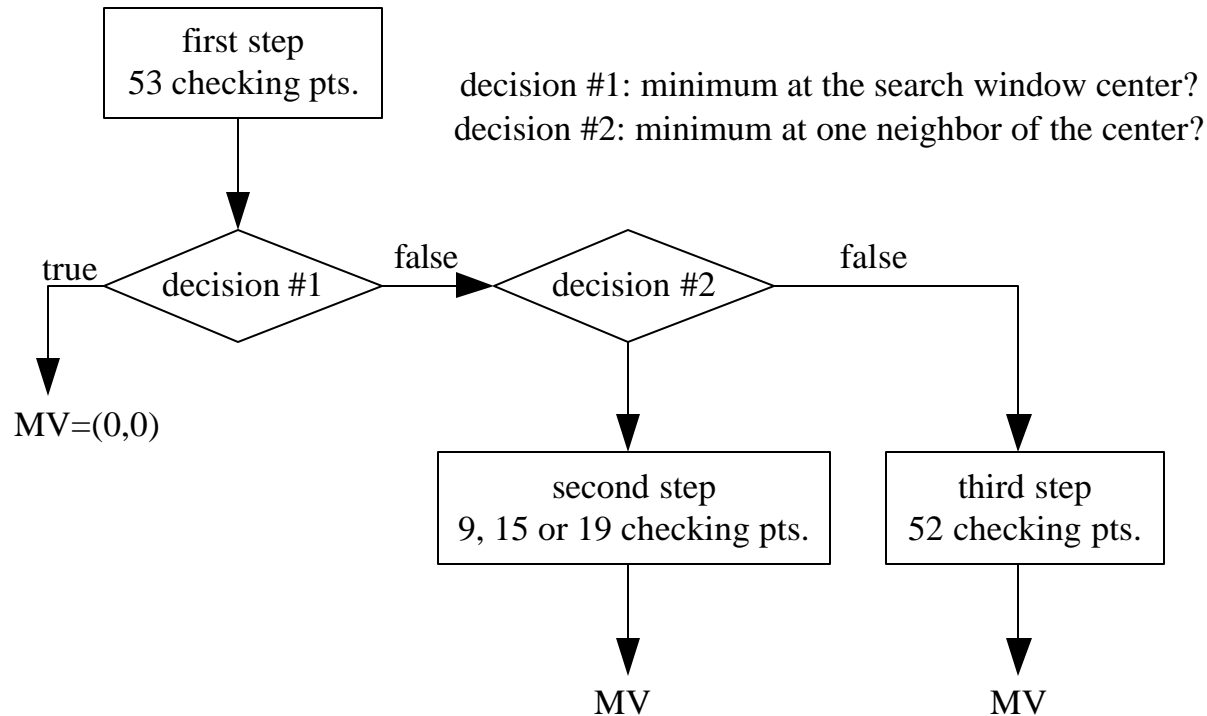
Preprocessing Module - Motion Comp.

- *2-D Block Match*
- *3-D Cube Match (2-4dB increase more than 2-D)*



Residual image of 3D

Fast 3-D Cube Match Algorithm



Using 3-D Cube Match to do the preprocessing part and then apply lossless compression on the residual image.