







VC HW3



1. Full search block matching algorithm

Search range: $[-8]$	Search range: $[-16]$	Search range: $[-32]$
reconstructed frame	reconstructed frame	reconstructed frame
		
residual	residual	residual
		
PSNR	PSNR	PSNR
PSNR: 30.861179228478175	PSNR: 31.603230203166596	PSNR: 33.46527250037206
runtime	runtime	runtime
Runtime: 1.4513053894042969 seconds	Runtime: 5.449767827987671 seconds	Runtime: 21.99227809906006 seconds

從實驗結果可以看出 Search range 越大 reconstruct 的效果越好，PSNR 越高，執行時間越久。

2. Three-step search

reconstructed frame


residual

PSNR
PSNR: 30.455860591076753
runtime
Runtime: 0.18805575370788574 seconds

從上面的表格可以看出 Three-step search 的執行時間比 Full search block matching algorithm 來的快，可是 psnr 比 Full search block matching algorithm 來的低。