Programming Assignment 1 Dimitris Vlachos -csd4492

O3CPU	STATIC		LOCAL		GAP		PAG		
	IPC	BMR	IPC	BMR	IPC	BMR	IPC	BMR	
Benchmark1	0.115602	24.7%	0.121273	1.8%	0.122752	1.1%	0.12358	0.40%	
Benchmark2	0.796266	17.5%	0.853121	15.4%	1.017205	12.1%	1.209114	7.7%	
Benchmark3	0.672778	42.7%	1.370726	16%	1.228149	21.7%	1.444040	14.08%	
Benchmark4	0.064211	48.7%	0.064287	0.07%	0.064283	0.1%	0.064288	0.05%	
Benchmark5	0.525420	31%	0.527996	0.21%	0.527968	0.29%	0.528003	0.19%	

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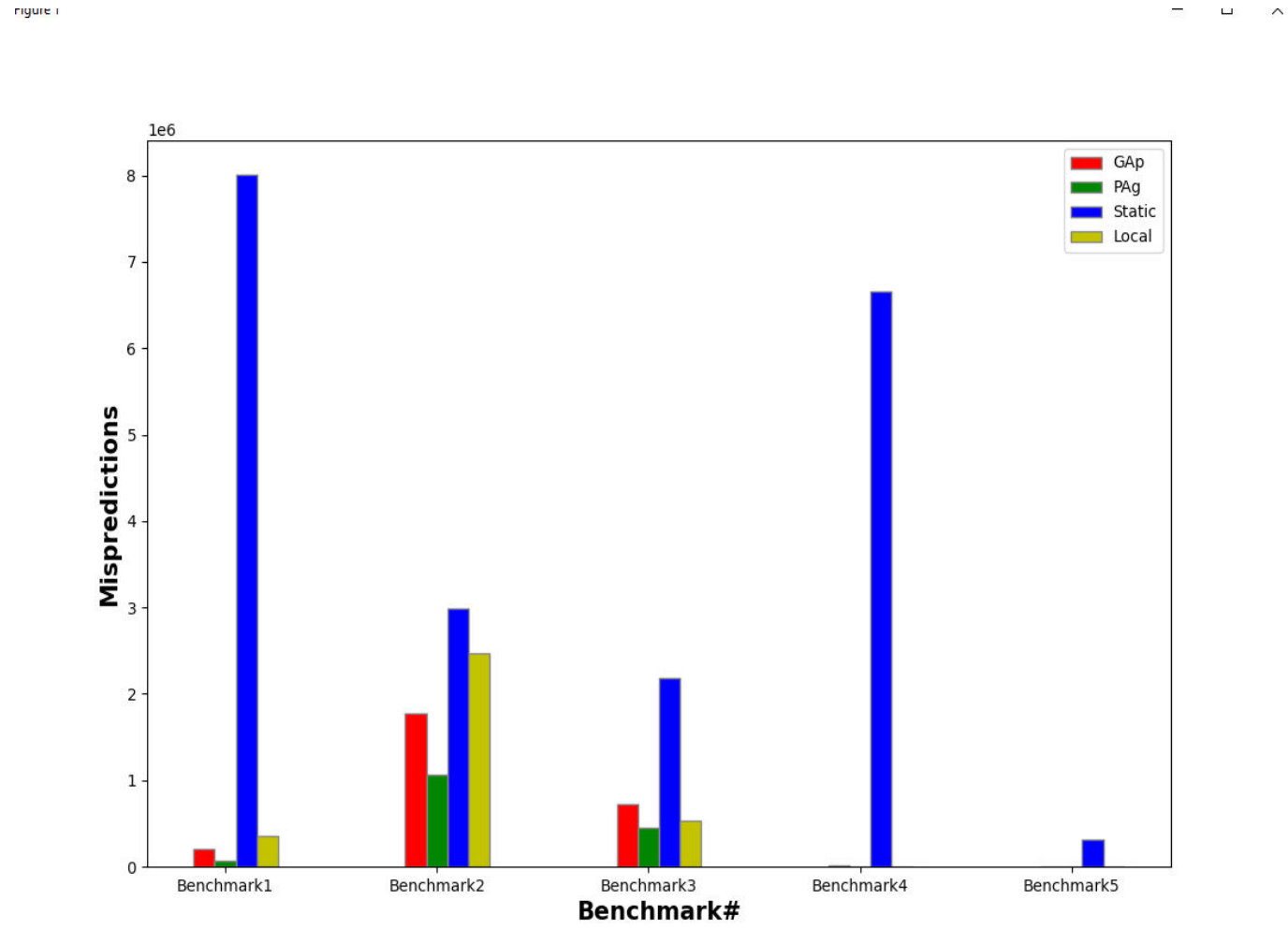
The above measurements resulted from the simulation executed with the following values:

For Static : BTB Entries :1024



For Local : BTB Entries :1024 Predictor Size:32 Predictor Bits :2
For Gap : BTB Entries :1024 History Size :5 Ptable Height :32 Ptable Width :32 Predictor Bits :3
For Pag : BTB Entries :1024 Ltable Height :256 Lhistory width :5 Gtable Height:32 Gpred Size :3

Number of mispredictions

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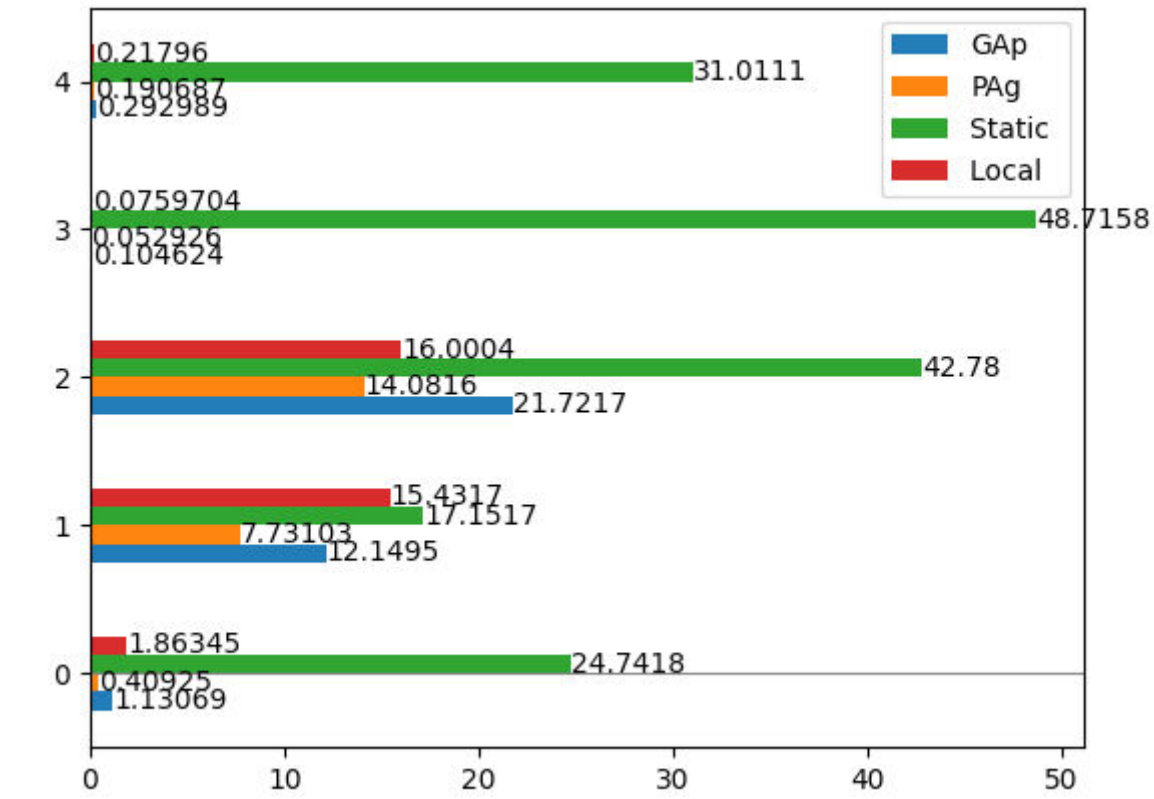
BMR PLOT



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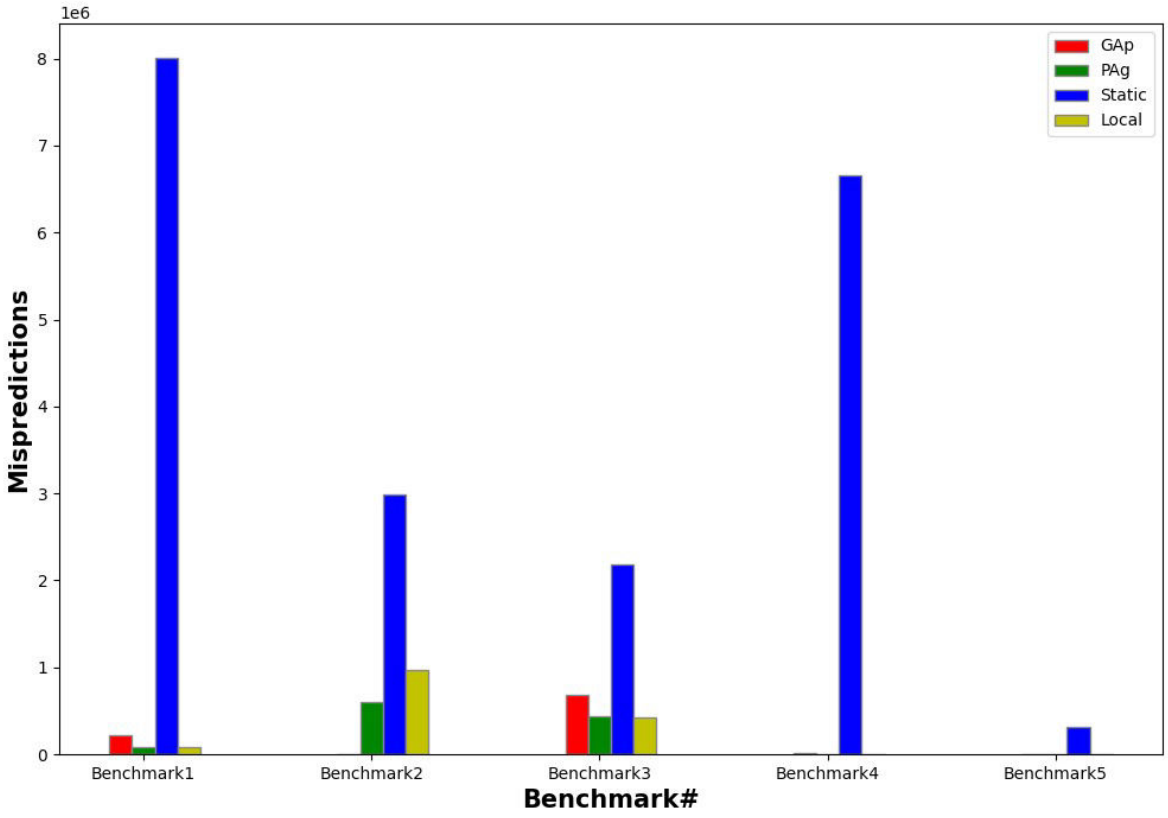
Running the simulation with memory upper limit of 2048 we get the following results:



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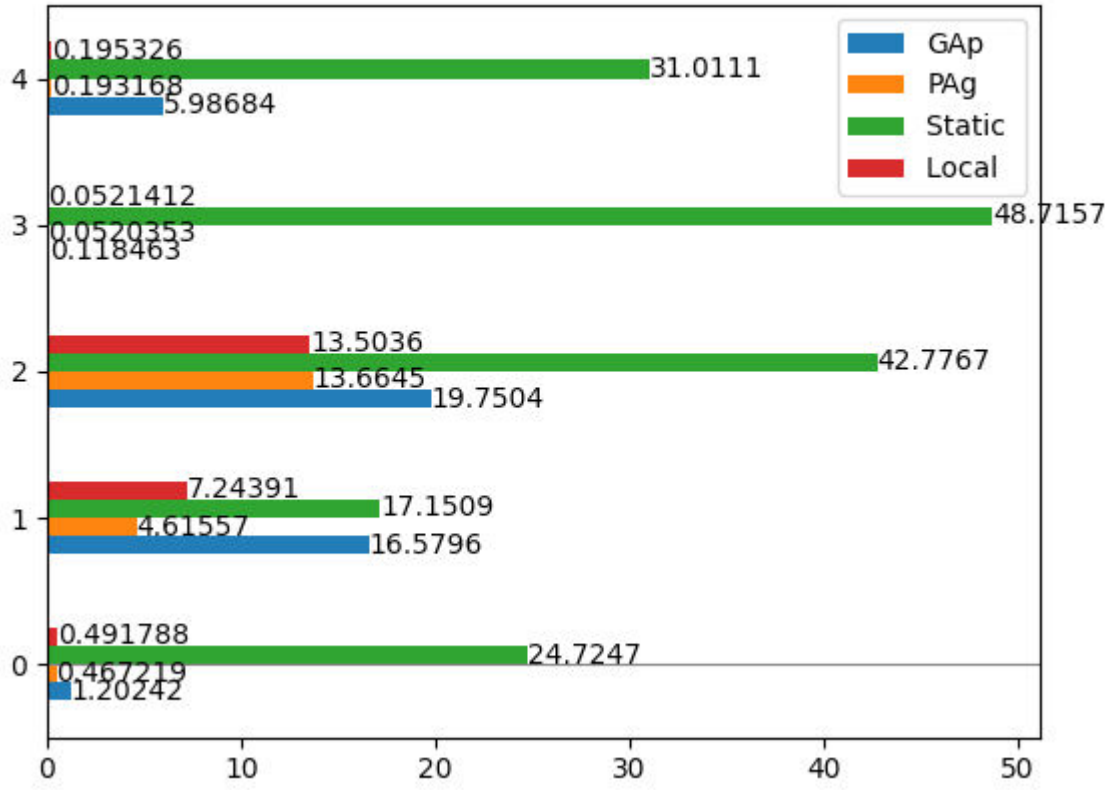

Clearly in this case Pag achieves the best performnace in 4 out of 5 benchmarks
In benchmark 3 local predictor is better by 0.1 %