

Simulation Results steps

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1 First Step

Table 1: Benchmark used

Benchmark	# qubits	# gates	two-qubit gates (%)
4gt11 ₈₂	5	27	67

Table 2: Step 1 results after 100 iterations

Mapper	Init. place	t_1	t_2	meas. err.	p. success	f	V_Q
No	No	3000	3000	0.03	0.99	0.98879	390
minextendrc	No	3000	3000	0.03	0.96	0.9404637	1582
minextendrc	Yes	3000	3000	0.03	0.98	0.9675513	1038
minextend	No	3000	3000	0.03	0.98	0.944128	1264
minextend	Yes	3000	3000	0.03	0.98	0.9585909	834
base	No	3000	3000	0.03	0.97	0.92331	1062
base	Yes	3000	3000	0.03	0.97	0.92331	1062

Table 3: Other mapper statistics

Mapper	Init. place	# qubits (after mapping)	depth	# SWAPS	# meetings in between
No	No	5	84	0	0
minextendrc	No	7	237	17	3
minextendrc	Yes	6	174	10	2
minextend	No	8	228	16	1
minextend	Yes	6	165	9	0
base	No	6	228	16	
base	Yes	6	228	16	

1.1 Routing comparison

1.1.1 No initial placement

1.1.2 With initial placement

2 1000 iterations

3 Simplest benchmarks results