

Decision Procedures Strategies

CSE 574

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“Does there exist a solution with
cost at most k ?”

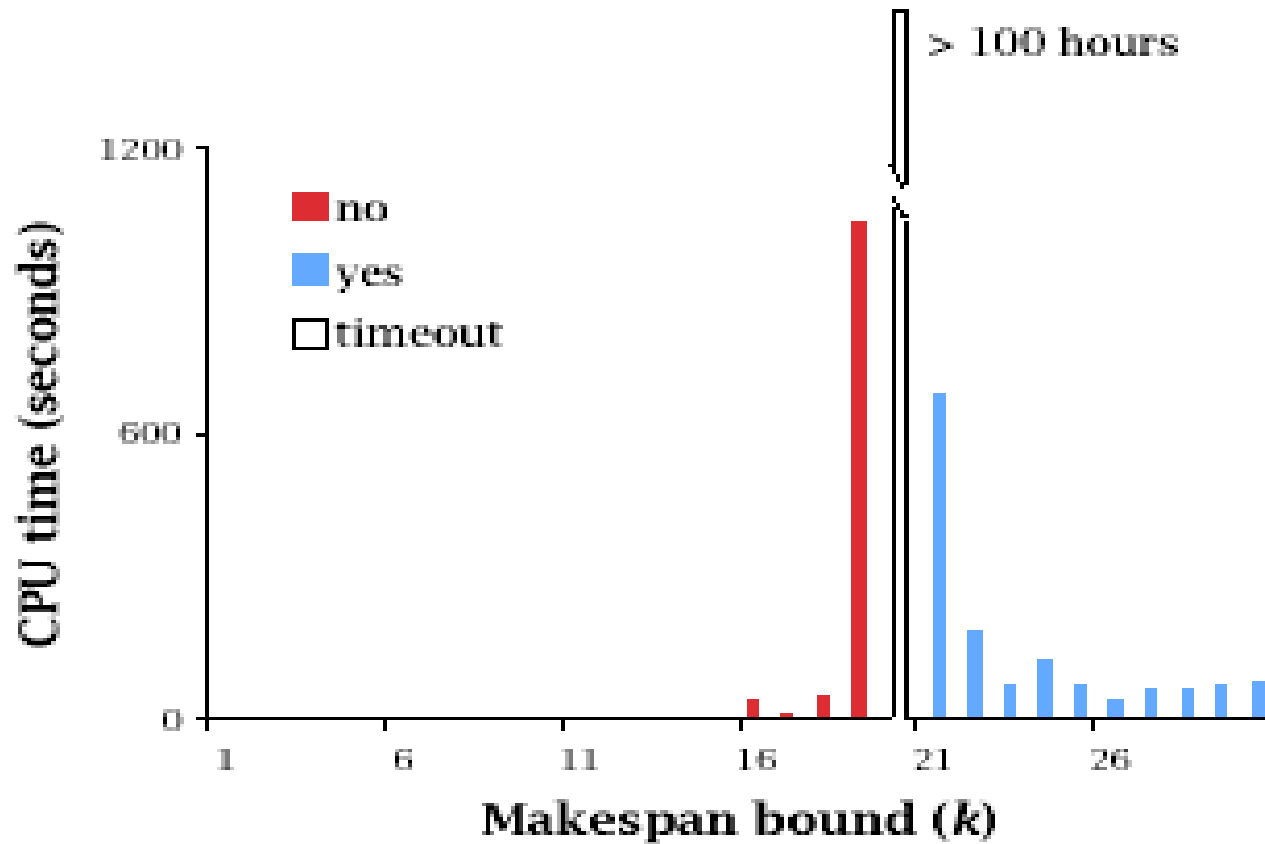
SatPlan – ramp-up

MaxPlan – ramp-down

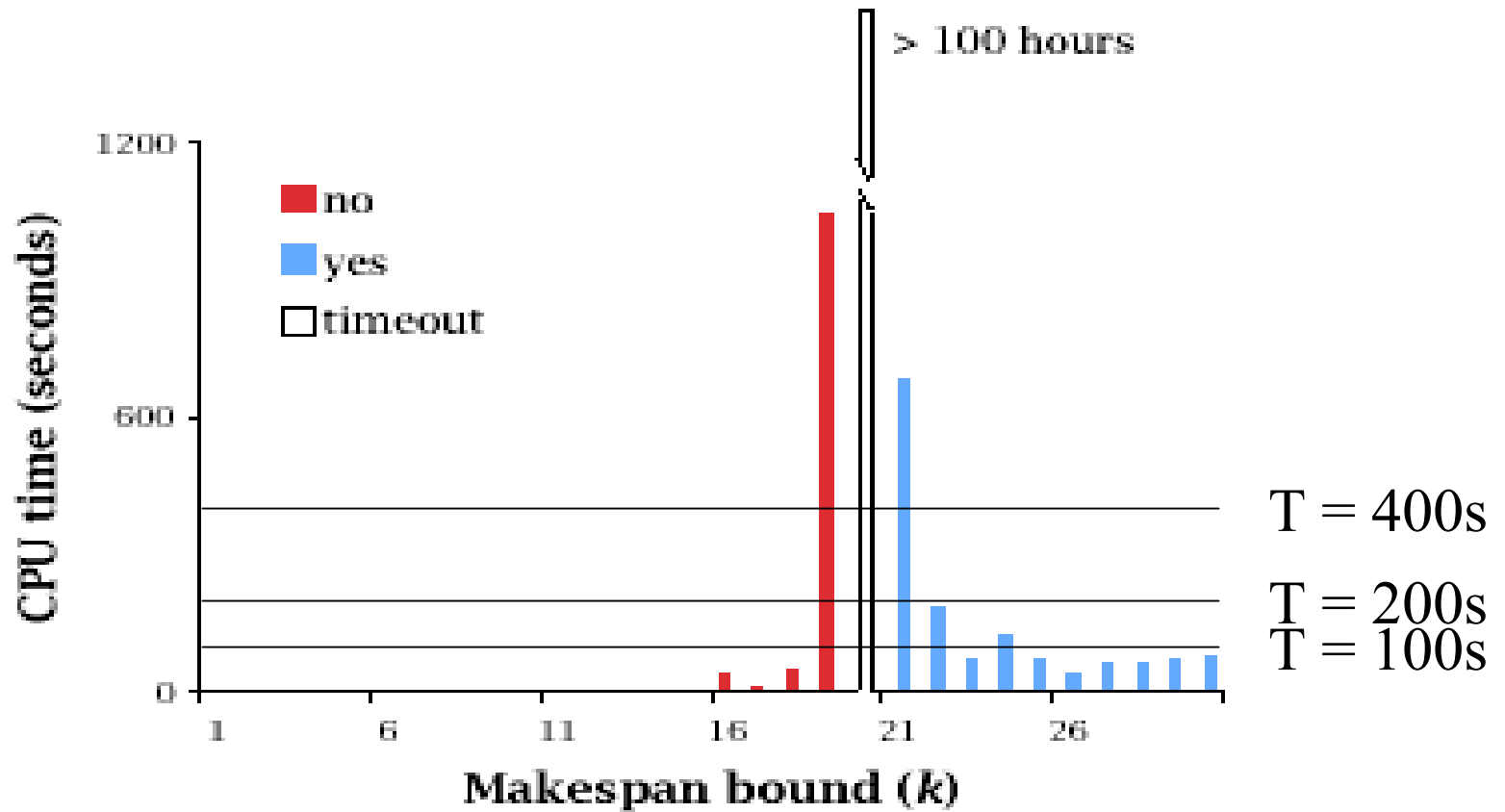
S2 – proposed by Streeter and Smith

MS – timeout twice

Time Requirements for Decision Module



Time Requirements for Decision Module



Required time

Exp.	Description	S2	MS	Ratio
1	Linear, not steep	88	54	0.61
2	Linear, steep	795	397	0.50
3	quadratic, steep	6460	2779	0.43
4	quadratic, not steep	362	166	0.46
5	inverse linear	3504	2710	0.77
6	bin packing	90	76	0.84

Number of calls

Exp.	Description	S2	MS	Ratio
1	Linear, not steep	32	13	0.41
2	Linear, steep	62	17	0.27
3	quadratic, steep	93	23	0.25
4	quadratic, not steep	52	15	0.29
5	inverse linear	79	28	0.35
6	bin packing	29	14	0.48