

MA3908 Goal programming Excel question

For the goal programming question considered previously (question and model answer as at http://people.brunel.ac.uk/~mastjjb/jeb/finance/gp_tutorial.pdf) use Excel and Solver to decide what to do:

- using a weighted goal programming approach
- using a priority approach

MA3908 Goal programming Excel solution

The sheet below shows the solution for the weighted approach, plus the solver model.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1				Product				Effective					
2			A	B	C		Capacity	Capacity					
3	Machine	X	1.2	2.3	2.6		2000	1980					
4		Y	3.4	4.2	3.3		2340	2316.6					
5		Z	3.3	2.7	4.5		2435	2410.65					
6													
7			A	B	C								
8	Variables	X	1650.00	0.00	0.00								
9		Y	0.00	0.00	702.00								
10		Z	730.50	0.00	0.00								
11		downward	1519.50	4460.00	68.00								
12													
13	time	X	1980										
14		Y	2316.6										
15		Z	2410.65										
16													
17		tech constraint	-3400.714286										
18													
19			A	B	C								
20		demand lhs	3900	4460	770								
21													
22		Cost F	10822.383										
23													
24	Weighted	deviation	907.2777223										
25													

Solver Parameters [?] [X]

Set Target Cell: [fx]

Equal To: Max Min Value of:

By Changing Cells: [fx]

Subject to the Constraints:

\$C\$13:\$C\$15 <= \$H\$3:\$H\$5

\$C\$17 <= 0

\$C\$20 >= 3900

\$D\$20 >= 4460

\$E\$20 >= 770

