

E.3 Scenario 3 Output Results

Time	"Aged Base Data 3 (AD3)"	"Base Data 3 (BD3)"	"base data 3 decomposition rate a (BDR3a)"	"base data 3 production employees (BEP3)"	"base data 3 production rate (BDPR3)"	"base data 3 production workstations (BWP3)"	"base employees 3 (BE3)"	"base workstations 3 (BW3)"	"change in employees 3 (dE3)"	"change in workstations 3 (dW3)"	"cost per base data set 3 (cBD3)"	"cost per data set 3 (cD3)"
1	0	101.7999	0	102.9775	100.0965	312.4375	104.54	314	12.54548	27.95384	19011.02	46954.87
2	0	201.8965	0	102.9775	100.0965	312.4375			12.32962	26.08224	9585.706	19806.4
3	0	301.993	0	102.9775	100.0965	312.4375			11.47857	23.35162	6408.493	12796.2
4	0	402.0895	0	102.9775	100.0965	312.4375			10.35931	20.45547	4813.157	9431.707
5	0	502.186	0	102.9775	100.0965	312.4375			9.170998	17.69477	3853.791	7422.249
6	0	602.2826	0	102.9775	100.0965	312.4375			8.016498	15.18795	3213.309	6079.376
7	0	702.3792	0	102.9775	100.0965	312.4375			6.945815	12.96971	2755.378	5118.024
8	0	802.4757	0	102.9775	100.0965	312.4375			5.979979	11.03646	2411.687	4396.802
9	0	902.5723	0	102.9775	100.0965	312.4375			5.124162	9.367726	2144.227	3836.939
10	0	1002.669	0	102.9775	100.0965	312.4375			4.375062	7.936562	1930.169	3390.835
11	0	1102.765	0	102.9775	100.0965	312.4375			3.725072	6.714635	1754.97	3027.944
12	0	1202.862	0	102.9775	100.0965	312.4375			3.164703	5.674734	1608.929	2727.725
13	0	1302.958	0	102.9775	100.0965	312.4375			2.683945	4.791855	1485.327	2475.844
14	0	1403.055	0	102.9775	100.0965	312.4375			2.273026	4.043645	1379.361	2261.987
15	0	1503.152	0	102.9775	100.0965	312.4375			1.922836	3.410461	1287.508	2078.546
16	0	1603.248	0	102.9775	100.0965	312.4375			1.625092	2.875193	1207.124	1919.781
17	0	1703.345	0	102.9775	100.0965	312.4375			1.372406	2.423096	1136.188	1781.288
18	0	1803.441	0	102.9775	100.0965	312.4375			1.158292	2.041509	1073.126	1659.626
19	0	1903.538	0	102.9775	100.0965	312.4375			0.977078	1.719615	1016.696	1552.074
20	0	2003.634	0	102.9775	100.0965	312.4375			0.823859	1.448191	965.9048	1456.451
21	0	2103.731	0	102.9775	100.0965	312.4375			0.694421	1.219427	919.9465	1370.991
22	0	2203.827	0	102.9775	100.0965	312.4375			0.585147	1.026657	878.1631	1294.249
23	0	2303.924	0	102.9775	100.0965	312.4375			0.492947	0.864273	840.0104	1225.032
24	0	2404.02	0	102.9775	100.0965	312.4375			0.415192	0.727503	805.0348	1162.347
25	0	2504.117	0	102.9775	100.0965	312.4375			0.34964	0.612335	772.8553	1105.363
26	0	2604.213	0	102.9775	100.0965	312.4375			0.294394	0.515361	743.1496	1053.378
27	0	2704.31	0	102.9775	100.0965	312.4375			0.247842	0.433716	715.6429	1005.798
28	0	2804.406	0	102.9775	100.0965	312.4375			0.208636	0.364995	690.0998	962.1135
29	0	2904.502	0	102.9775	100.0965	312.4375			0.17562	0.307154	666.3172	921.889
30	0	3004.599	0	102.9775	100.0965	312.4375			0.147812	0.258469	644.1193	884.7488

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31	0	3104.695	0	102.9775	100.0965	312.4375			0.124402	0.217494	623.3527	850.3674
32	0	3204.792	0	102.9775	100.0965	312.4375			0.104694	0.183014	603.8832	818.4617
33	0	3304.888	0	102.9775	100.0965	312.4375			0.088107	0.153997	585.5932	788.7846
34	0	3404.985	0	102.9775	100.0965	312.4375			0.074139	0.129573	568.3785	761.1197
35	0	3505.081	0	102.9775	100.0965	312.4375			0.06239	0.109029	552.147	735.2767
36	0	3605.177	0	102.9775	100.0965	312.4375			0.052499	0.091736	536.8168	711.0875
37	0	3705.274	0	102.9775	100.0965	312.4375			0.044174	0.077184	522.3149	688.4034
38	0	3805.37	0	102.9775	100.0965	312.4375			0.03717	0.064941	508.576	667.0926
39	0	3905.467	0	102.9775	100.0965	312.4375			0.031274	0.054637	495.5413	647.0375
40	0	4005.563	0	102.9775	100.0965	312.4375			0.026318	0.04598	483.158	628.1332
41	0	4105.66	0	102.9775	100.0965	312.4375			0.022144	0.038681	471.3786	610.286
42	0	4205.756	0	102.9775	100.0965	312.4375			0.018631	0.032547	460.1598	593.4115
43	0	4305.853	0	102.9775	100.0965	312.4375			0.015674	0.027379	449.4626	577.4341
44	0	4405.95	0	102.9775	100.0965	312.4375			0.013193	0.023046	439.2515	562.2853
45	0	4506.046	0	102.9775	100.0965	312.4375			0.011096	0.019384	429.494	547.9036
46	0	4606.143	0	102.9775	100.0965	312.4375			0.009338	0.016312	420.1606	534.2332
47	0	4706.24	0	102.9775	100.0965	312.4375			0.007855	0.013723	411.2243	521.2231
48	0	4806.336	0	102.9775	100.0965	312.4375			0.006613	0.011551	402.6601	508.8275
49	0	4906.433	0	102.9775	100.0965	312.4375			0.005563	0.00972	394.4454	497.0042
50	0	5006.53	0	102.9775	100.0965	312.4375			0.004681	0.008179	386.5592	485.7151
51	0	5106.626	0	102.9775	100.0965	312.4375			0.00394	0.006882	378.9821	474.9251
52	0	5206.723	0	102.9775	100.0965	312.4375			0.003311	0.005783	371.6964	464.6021
53	0	5306.82	0	102.9775	100.0965	312.4375			0.002786	0.004868	364.6855	454.7168
54	0	5406.917	0	102.9775	100.0965	312.4375			0.002344	0.004094	357.9341	445.2419
55	0	5507.013	0	102.9775	100.0965	312.4375			0.001968	0.003438	351.4283	436.1528
56	0	5607.11	0	102.9775	100.0965	312.4375			0.001657	0.002894	345.1546	427.4264
57	0	5707.207	0	102.9775	100.0965	312.4375			0.001395	0.002436	339.1011	419.0416
58	0	5807.303	0	102.9775	100.0965	312.4375			0.001172	0.002045	333.2562	410.9789
59	0	5907.4	0	102.9775	100.0965	312.4375			0.000986	0.001724	327.6094	403.2199
60	0	6007.497	30.03748	102.9775	100.0965	312.4375			0.00083	0.00145	322.1508	395.7481

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61	30.03748	6077.556	30.38778	102.9775	100.0965	312.4375			3.260675	5.695364	318.4372	390.4647
62	60.42526	6147.265	30.73632	102.9775	100.0965	312.4375			2.852731	4.963806	314.8262	392.7558
63	91.16158	6216.625	31.08312	102.9775	100.0965	312.4375			2.505484	4.345327	311.3136	393.819
64	122.2447	6285.638	31.42819	102.9775	100.0965	312.4375			2.205987	3.815094	307.8955	393.8797
65	153.6729	6354.307	31.77153	102.9775	100.0965	312.4375			1.948276	3.36114	304.5682	393.1179
66	185.4444	6422.632	32.11316	102.9775	100.0965	312.4375			1.726929	2.972916	301.3282	391.686
67	217.5576	6490.615	32.45308	102.9775	100.0965	312.4375			1.537106	2.641179	298.172	389.7131
68	250.0107	6558.259	32.79129	102.9775	100.0965	312.4375			1.374524	2.35792	295.0966	387.3074
69	282.802	6625.564	33.12782	102.9775	100.0965	312.4375			1.2354	2.11616	292.0989	384.5598
70	315.9298	6692.533	33.46266	102.9775	100.0965	312.4375			1.116449	1.909912	289.176	381.5455
71	349.3925	6759.167	33.79583	102.9775	100.0965	312.4375			1.014816	1.734014	286.3253	378.3274
72	383.1883	6825.467	34.12733	102.9775	100.0965	312.4375			0.928021	1.58403	283.5439	374.9574
73	417.3156	6891.437	34.45718	102.9775	100.0965	312.4375			0.853934	1.456172	280.8297	371.4784
74	451.7728	6957.076	34.78538	102.9775	100.0965	312.4375			0.79072	1.347188	278.1801	367.9254
75	486.5582	7022.387	35.11193	102.9775	100.0965	312.4375			0.736792	1.254288	275.5929	364.3273
76	521.6701	7087.371	35.43686	102.9775	100.0965	312.4375			0.690802	1.175115	273.066	360.7077
77	557.1069	7152.031	35.76015	102.9775	100.0965	312.4375			0.651593	1.107641	270.5973	357.0856
78	592.8671	7216.367	36.08184	102.9775	100.0965	312.4375			0.618173	1.050135	268.1848	353.4763
79	628.9489	7280.382	36.40191	102.9775	100.0965	312.4375			0.589679	1.001109	265.8267	349.8921
80	665.3508	7344.077	36.72038	102.9775	100.0965	312.4375			0.565411	0.959335	263.5212	346.3428
81	702.0712	7407.453	37.03726	102.9775	100.0965	312.4375			0.544733	0.923726	261.2666	342.8362
82	739.1085	7470.512	37.35256	102.9775	100.0965	312.4375			0.527118	0.893372	259.0612	339.378
83	776.4611	7533.256	37.66628	102.9775	100.0965	312.4375			0.512115	0.867488	256.9035	335.973
84	814.1273	7595.686	37.97843	102.9775	100.0965	312.4375			0.499347	0.845428	254.792	332.6244
85	852.1058	7657.804	38.28902	102.9775	100.0965	312.4375			0.488486	0.826635	252.7252	329.3345
86	890.3948	7719.612	38.59806	102.9775	100.0965	312.4375			0.479242	0.810598	250.7017	326.1052
87	928.9929	7781.11	38.90555	102.9775	100.0965	312.4375			0.471378	0.796921	248.7203	322.9373
88	967.8984	7842.301	39.21151	102.9775	100.0965	312.4375			0.464706	0.785283	246.7796	319.8311
89	1007.11	7903.187	39.51593	102.9775	100.0965	312.4375			0.459033	0.775345	244.8784	316.7869
90	1046.626	7963.767	39.81884	102.9775	100.0965	312.4375			0.454227	0.766876	243.0156	313.8044

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91	1086.445	8024.045	40.12022	102.9775	100.0965	312.4375			0.45015	0.759659	241.1901	310.8829
92	1126.565	8084.021	40.4201	102.9775	100.0965	312.4375			0.446695	0.753504	239.4007	308.0216
93	1166.985	8143.697	40.71849	102.9775	100.0965	312.4375			0.443774	0.748255	237.6464	305.2197
94	1207.704	8203.075	41.01537	102.9775	100.0965	312.4375			0.441321	0.7438	235.9262	302.4761
95	1248.719	8262.156	41.31078	102.9775	100.0965	312.4375			0.439252	0.739995	234.2391	299.7896
96	1290.03	8320.942	41.60471	102.9775	100.0965	312.4375			0.437512	0.73675	232.5842	297.1591
97	1331.635	8379.435	41.89717	102.9775	100.0965	312.4375			0.436063	0.734004	230.9607	294.5832
98	1373.532	8437.634	42.18817	102.9775	100.0965	312.4375			0.434848	0.731654	229.3676	292.0607
99	1415.72	8495.542	42.47771	102.9775	100.0965	312.4375			0.433853	0.72968	227.8042	289.5902
100	1458.198	8553.161	42.7658	102.9775	100.0965	312.4375			0.433023	0.727982	226.2696	287.1705
101	1500.963	8610.492	43.05246	102.9775	100.0965	312.4375			0.432352	0.726552	224.763	284.8002
102	1544.016	8667.536	43.33768	102.9775	100.0965	312.4375			0.431812	0.725347	223.2838	282.4781
103	1587.353	8724.295	43.62148	102.9775	100.0965	312.4375			0.431375	0.724319	221.8311	280.2028
104	1630.975	8780.77	43.90385	102.9775	100.0965	312.4375			0.431036	0.72346	220.4044	277.9731
105	1674.879	8836.962	44.18481	102.9775	100.0965	312.4375			0.43078	0.722733	219.0029	275.7878
106	1719.063	8892.874	44.46437	102.9775	100.0965	312.4375			0.430588	0.722117	217.6259	273.6456
107	1763.528	8948.506	44.74253	102.9775	100.0965	312.4375			0.43046	0.721614	216.273	271.5454
108	1808.27	9003.86	45.0193	102.9775	100.0965	312.4375			0.430377	0.721191	214.9434	269.4861
109	1853.29	9058.938	45.29469	102.9775	100.0965	312.4375			0.430344	0.72084	213.6365	267.4665
110	1898.584	9113.739	45.5687	102.9775	100.0965	312.4375			0.430344	0.720556	212.3519	265.4856
111	1944.153	9168.268	45.84134	102.9775	100.0965	312.4375			0.43038	0.720327	211.089	263.5423
112	1989.994	9222.522	46.11261	102.9775	100.0965	312.4375			0.430438	0.720139	209.8471	261.6356
113	2036.107	9276.507	46.38253	102.9775	100.0965	312.4375			0.430521	0.719991	208.6259	259.7645
114	2082.49	9330.221	46.6511	102.9775	100.0965	312.4375			0.430624	0.719879	207.4249	257.928
115	2129.141	9383.666	46.91833	102.9775	100.0965	312.4375			0.43074	0.719788	206.2435	256.1253
116	2176.059	9436.844	47.18422	102.9775	100.0965	312.4375			0.430872	0.719727	205.0813	254.3553
117	2223.243	9489.756	47.44878	102.9775	100.0965	312.4375			0.431018	0.719691	203.9378	252.6174
118	2270.692	9542.403	47.71202	102.9775	100.0965	312.4375			0.431168	0.719655	202.8126	250.9105
119	2318.404	9594.788	47.97394	102.9775	100.0965	312.4375			0.431338	0.71966	201.7053	249.234
120	2366.378	9646.911	48.23455	102.9775	100.0965	312.4375			0.431506	0.71966	200.6155	247.587

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121	2414.612	9698.773	48.49387	102.9775	100.0965	312.4375			0.431689	0.719681	199.5428	245.9688
122	2463.106	9750.376	48.75188	102.9775	100.0965	312.4375			0.431873	0.719706	198.4867	244.3786
123	2511.858	9801.721	49.0086	102.9775	100.0965	312.4375			0.432065	0.719747	197.447	242.8157
124	2560.867	9852.809	49.26404	102.9775	100.0965	312.4375			0.432254	0.719783	196.4232	241.2794
125	2610.131	9903.641	49.5182	102.9775	100.0965	312.4375			0.432452	0.719833	195.415	239.7691
126	2659.649	9954.219	49.77109	102.9775	100.0965	312.4375			0.432654	0.719889	194.4221	238.2841
127	2709.42	10004.54	50.02272	102.9775	100.0965	312.4375			0.432855	0.71995	193.4441	236.8238
128	2759.443	10054.62	50.27309	102.9775	100.0965	312.4375			-18.4854	-30.7341	192.4807	235.3876
129	2809.716	10104.44	50.52221	1.5625	0.625	1.5625			-24.9216	-42.191	191.5316	212.2299
130	2860.238	10054.54	50.27272	1.5625	0.625	1.5625			-20.1473	-35.0924	192.4821	183.3722
131	2910.511	10004.9	50.02448	1.5625	0.625	1.5625			-16.3723	-29.2907	193.4373	159.7494
132	2960.535	9955.497	49.77748	1.5625	0.625	1.5625			-13.3349	-24.4627	194.3971	140.3277
133	3010.313	9906.345	49.53172	1.5625	0.625	1.5625			-10.888	-20.4457	195.3617	124.3326
134	3059.845	9857.438	49.28719	1.5625	0.625	1.5625			-8.91357	-17.1031	196.3309	111.1353
135	3109.132	9808.776	49.04388	1.5625	0.625	1.5625			-7.31737	-14.3212	197.3049	100.2248
136	3158.176	9760.357	48.80178	1.5625	0.625	1.5625			-6.00352	-11.9637	198.2837	91.1879
137	3206.978	9712.181	48.5609	1.5625	0.625	1.5625			-4.88993	-9.90453	199.2673	83.71449
138	3255.538	9664.245	48.32122	1.5625	0.625	1.5625			-3.98521	-8.18934	200.2557	77.58089
139	3303.86	9616.549	48.08274	1.5625	0.625	1.5625			-3.25279	-6.76949	201.2489	72.54786
140	3351.942	9569.091	47.84545	1.5625	0.625	1.5625			-2.65913	-5.59542	202.247	68.4149
141	3399.788	9521.87	47.60935	1.5625	0.625	1.5625			-2.17702	-4.62493	203.25	65.01828
142	3447.397	9474.886	47.37443	1.5625	0.625	1.5625			-1.78474	-3.82282	204.2579	62.22462
143	3494.772	9428.137	47.14068	1.5625	0.625	1.5625			-1.46494	-3.15992	205.2707	59.92522
144	3541.912	9381.621	46.9081	1.5625	0.625	1.5625			-1.20374	-2.61207	206.2884	58.03139
145	3588.821	9335.338	46.67669	1.5625	0.625	1.5625			-0.99006	-2.1593	207.3112	56.47066
146	3635.497	9289.286	46.44643	1.5625	0.625	1.5625			-0.815	-1.78509	208.3389	55.18381
147	3681.944	9243.465	46.21732	1.5625	0.625	1.5625			-0.67136	-1.47578	209.3717	54.12228
148	3728.161	9197.872	45.98936	1.5625	0.625	1.5625			-0.55339	-1.22012	210.4095	53.24628
149	3774.15	9152.508	45.76254	1.5625	0.625	1.5625			-0.45638	-1.00877	211.4524	52.52314
150	3819.913	9107.37	45.53685	1.5625	0.625	1.5625			-0.37654	-0.83406	212.5004	51.92603

E.3 Scenario 3 Output Results

Time	"Aged Base Data 3 (AD3)"	"Base Data 3 (BD3)"	"base data 3 decomposition rate a (BDR3a)"	"base data 3 production employees (BEP3)"	"base data 3 production rate (BDPR3)"	"base data 3 production workstations (BWP3)"	"base employees 3 (BE3)"	"base workstations 3 (BW3)"	"change in employees 3 (dE3)"	"change in workstations 3 (dW3)"	"cost per base data set 3 (cBD3)"	"cost per data set 3 (cD3)"
151	3865.45	9062.458	45.31229	1.5625	0.625	1.5625			-0.31079	-0.68962	213.5535	51.43285
152	3910.762	9017.771	45.08885	1.5625	0.625	1.5625			-0.2566	-0.57021	214.6118	51.02546
153	3955.851	8973.307	44.86653	1.5625	0.625	1.5625			-0.21191	-0.47148	215.6752	50.68885
154	4000.717	8929.065	44.64532	1.5625	0.625	1.5625			-0.17505	-0.38985	216.7439	50.4107
155	4045.363	8885.045	44.42522	1.5625	0.625	1.5625			-0.14462	-0.32236	217.8177	50.18081
156	4089.788	8841.245	44.20623	1.5625	0.625	1.5625			-0.1195	-0.26656	218.8968	49.99081
157	4133.994	8797.664	43.98832	1.5625	0.625	1.5625			-0.09876	-0.22042	219.9811	49.83376
158	4177.982	8754.301	43.7715	1.5625	0.625	1.5625			-0.08162	-0.18226	221.0708	49.70392
159	4221.754	8711.154	43.55577	1.5625	0.625	1.5625			-0.06747	-0.15071	222.1657	49.59659
160	4265.31	8668.224	43.34112	1.5625	0.625	1.5625			-0.05577	-0.12462	223.266	49.50785

E.3 Scenario 3 Output Results

Time	"cost per employee 3 (cpE3)"	"cost per workstation 3 (cpW3)"	"Data 3 (D3)"	"data 3 decomposition rate a (DDR3a)"	"data 3 maintenance employees (EM3)"	"Data 3 Maintenance Queue (DM3)"	"data 3 maintenance required (DMN3)"	"data 3 maintenance standard (MS3)"	"data 3 maintenance workstations (WM3)"	"data 3 population requirement (DR3)"	"data 3 production employees (EP3)"	"data 3 production function (Dp3)"
1	8000	3500	10.6329	0	0	0	0	0.8	0	11989.37	27.19968	34.58141
2			35.21431	0	0	0	0		0	11964.79	39.74516	44.13393
3			69.34824	0	0	0	0		0	11930.65	52.07479	53.13965
4			112.4879	0	0	0	0		0	11887.51	63.55335	61.26591
5			163.7538	0	0	0	0		0	11836.25	73.91266	68.42708
6			222.1809	0	0	0	0		0	11777.82	83.08366	74.65067
7			286.8315	0	0	0	0		0	11713.17	91.10015	80.01219
8			356.8438	0	0	0	0		0	11643.16	98.04597	84.60404
9			431.4478	0	0	0	0		0	11568.55	104.0259	88.52065
10			509.9684	0	0	0	0		0	11490.03	109.1501	91.85141
11			591.8198	0	0	0	0		0	11408.18	113.5252	94.67771
12			676.4976	0	0	0	0		0	11323.5	117.2502	97.07193
13			763.5695	0	0	0	0		0	11236.43	120.4149	99.0975
14			852.6669	0	0	0	0		0	11147.33	123.0989	100.8094
15			943.4763	0	0	0	0		0	11056.52	125.3719	102.2551
16			1035.731	0	0	0	0		0	10964.27	127.2948	103.4751
17			1129.207	0	0	0	0		0	10870.79	128.9198	104.5042
18			1223.711	0	0	0	0		0	10776.29	130.2923	105.3718
19			1319.082	0	0	0	0		0	10680.92	131.4505	106.103
20			1415.185	0	0	0	0		0	10584.81	132.4276	106.7191
21			1511.905	0	0	0	0		0	10488.1	133.2515	107.2381
22			1609.143	0	0	0	0		0	10390.86	133.9459	107.6752
23			1706.818	0	0	0	0		0	10293.18	134.5311	108.0433
24			1804.861	0	0	0	0		0	10195.14	135.024	108.3532
25			1903.214	0	0	0	0		0	10096.79	135.4392	108.614
26			2001.828	0	0	0	0		0	9998.172	135.7888	108.8337
27			2100.662	0	0	0	0		0	9899.338	136.0832	109.0185
28			2199.68	0	0	0	0		0	9800.319	136.3311	109.1741
29			2298.854	0	0	0	0		0	9701.146	136.5397	109.305
30			2398.159	0	0	0	0		0	9601.841	136.7153	109.4152

E.3 Scenario 3 Output Results

Time	"cost per employee 3 (cpE3)"	"cost per workstation 3 (cpW3)"	"Data 3 (D3)"	"data 3 decomposition rate a (DDR3a)"	"data 3 maintenance employees (EM3)"	"Data 3 Maintenance Queue (DM3)"	"data 3 maintenance required (DMN3)"	"data 3 maintenance standard (MS3)"	"data 3 maintenance workstations (WM3)"	"data 3 population requirement (DR3)"	"data 3 production employees (EP3)"	"data 3 production function (Dp3)"
31			2497.575	0	0	0	0		0	9502.426	136.8631	109.5079
32			2597.083	0	0	0	0		0	9402.918	136.9875	109.586
33			2696.668	0	0	0	0		0	9303.332	137.0922	109.6516
34			2796.32	0	0	0	0		0	9203.68	137.1803	109.7069
35			2896.027	0	0	0	0		0	9103.973	137.2545	109.7534
36			2995.78	0	0	0	0		0	9004.22	137.3169	109.7925
37			3095.573	0	0	0	0		0	8904.428	137.3694	109.8254
38			3195.398	0	0	0	0		0	8804.602	137.4135	109.8531
39			3295.251	0	0	0	0		0	8704.749	137.4507	109.8764
40			3395.128	0	0	0	0		0	8604.872	137.482	109.896
41			3495.024	0	0	0	0		0	8504.977	137.5083	109.9125
42			3594.936	0	0	0	0		0	8405.063	137.5305	109.9264
43			3694.863	0	0	0	0		0	8305.138	137.5491	109.9381
44			3794.801	0	0	0	0		0	8205.199	137.5648	109.9479
45			3894.748	0	0	0	0		0	8105.252	137.578	109.9562
46			3994.704	0	0	0	0		0	8005.296	137.5891	109.9631
47			4094.667	0	0	0	0		0	7905.333	137.5984	109.969
48			4194.636	0	0	0	0		0	7805.364	137.6062	109.9739
49			4294.61	0	0	0	0		0	7705.39	137.6129	109.978
50			4394.588	0	0	0	0		0	7605.412	137.6184	109.9815
51			4494.57	0	0	0	0		0	7505.43	137.6231	109.9844
52			4594.554	0	0	0	0		0	7405.446	137.627	109.9869
53			4694.541	0	0	0	0		0	7305.459	137.6304	109.989
54			4794.53	0	0	0	0		0	7205.47	137.6331	109.9907
55			4894.521	0	0	0	0		0	7105.479	137.6355	109.9922
56			4994.513	0	0	0	0		0	7005.487	137.6375	109.9935
57			5094.506	0	0	0	0		0	6905.494	137.6391	109.9945
58			5194.501	0	0	0	0		0	6805.499	137.6405	109.9954
59			5294.497	0	0	0	0		0	6705.503	137.6417	109.9961
60			5394.493	26.97246	0	0	0		0	6605.507	137.6427	109.9967



E.3 Scenario 3 Output Results

Time	"cost per employe 3 (cpE3)"	"cost per workstation 3 (cpW3)"	"Data 3 (D3)"	"data 3 decomposition rate a (DDR3a)"	"data 3 maintenance employes (EM3)"	"Data 3 Maintenance Queue (DM3)"	"data 3 maintenance required (DMN3)"	"data 3 maintenance standard (MS3)"	"data 3 maintenance workstations (WM3)"	"data 3 population requirement (DR3)"	"data 3 production employes (EP3)"	"data 3 production function (Dp3)"
61			5467.517	27.33759	33.71558	26.97246	26.97246		33.71558	6505.51	103.9279	122.6125
62			5552.792	27.76396	34.17198	27.33759	27.33759		34.17198	6419.871	106.7322	124.8388
63			5639.867	28.19933	34.70495	27.76396	27.76396		34.70495	6332.369	109.052	126.8304
64			5728.498	28.64249	35.24917	28.19934	28.19934		35.24917	6243.303	111.0132	128.6036
65			5818.458	29.09229	35.80311	28.64249	28.64249		35.80311	6152.899	112.6653	130.1894
66			5909.556	29.54778	36.36537	29.09229	29.09229		36.36537	6061.352	114.0513	131.6147
67			6001.623	30.00811	36.93473	29.54778	29.54778		36.93473	5968.83	115.2089	132.9025
68			6094.517	30.47259	37.51014	30.00811	30.00811		37.51014	5875.475	116.1706	134.0727
69			6188.117	30.94059	38.09073	30.47259	30.47259		38.09073	5781.41	116.9645	135.1426
70			6282.319	31.4116	38.67574	30.94059	30.94059		38.67574	5686.74	117.6149	136.1267
71			6377.034	31.88517	39.2645	31.4116	31.4116		39.2645	5591.554	118.1426	137.0376
72			6472.187	32.36093	39.85647	31.88517	31.88517		39.85647	5495.928	118.5654	137.886
73			6567.711	32.83856	40.45116	32.36093	32.36093		40.45116	5399.928	118.8988	138.6812
74			6663.554	33.31777	41.0482	32.83856	32.83856		41.0482	5303.607	119.1557	139.4308
75			6759.667	33.79834	41.64722	33.31778	33.31778		41.64722	5207.015	119.3474	140.1418
76			6856.011	34.28005	42.24792	33.79834	33.79834		42.24792	5110.191	119.4834	140.8197
77			6952.55	34.76275	42.85006	34.28005	34.28005		42.85006	5013.169	119.5721	141.4694
78			7049.257	35.24628	43.45345	34.76276	34.76276		43.45345	4915.98	119.6203	142.0951
79			7146.105	35.73053	44.05786	35.24629	35.24629		44.05786	4818.648	119.6341	142.7003
80			7243.075	36.21537	44.66316	35.73053	35.73053		44.66316	4721.194	119.6185	143.288
81			7340.148	36.70074	45.26922	36.21538	36.21538		45.26922	4623.637	119.5778	143.8608
82			7437.308	37.18654	45.87593	36.70074	36.70074		45.87593	4525.991	119.5158	144.4209
83			7534.542	37.67271	46.48318	37.18654	37.18654		46.48318	4428.271	119.4357	144.9701
84			7631.84	38.1592	47.09089	37.67271	37.67271		47.09089	4330.487	119.3401	145.5101
85			7729.191	38.64595	47.699	38.1592	38.1592		47.699	4232.65	119.2313	146.0422
86			7826.587	39.13293	48.30745	38.64596	38.64596		48.30745	4134.767	119.1114	146.5676
87			7924.022	39.62011	48.91617	39.13294	39.13294		48.91617	4036.845	118.9819	147.0872
88			8021.489	40.10744	49.52514	39.62011	39.62011		49.52514	3938.891	118.8443	147.6019
89			8118.984	40.59492	50.1343	40.10744	40.10744		50.1343	3840.909	118.6998	148.1124
90			8216.501	41.0825	50.74365	40.59492	40.59492		50.74365	3742.904	118.5495	148.6194

E.3 Scenario 3 Output Results

Time	"cost per employe 3 (cpE3)"	"cost per workstation 3 (cpW3)"	"Data 3 (D3)"	"data 3 decomposition rate a (DDR3a)"	"data 3 maintenance employes (EM3)"	"Data 3 Maintenance Queue (DM3)"	"data 3 maintenance required (DMN3)"	"data 3 maintenance standard (MS3)"	"data 3 maintenance workstations (WM3)"	"data 3 population requirement (DR3)"	"data 3 production employes (EP3)"	"data 3 production function (Dp3)"
91			8314.038	41.57019	51.35313	41.0825	41.0825		51.35313	3644.879	118.3943	149.1233
92			8411.591	42.05795	51.96274	41.57019	41.57019		51.96274	3546.839	118.2348	149.6246
93			8509.157	42.54578	52.57245	42.05796	42.05796		52.57245	3448.785	118.0718	150.1236
94			8606.735	43.03368	53.18224	42.54579	42.54579		53.18224	3350.719	117.9058	150.6207
95			8704.322	43.52161	53.7921	43.03368	43.03368		53.7921	3252.644	117.7372	151.1163
96			8801.917	44.00958	54.40202	43.52161	43.52161		54.40202	3154.561	117.5666	151.6104
97			8899.518	44.49759	55.01198	44.00959	44.00959		55.01198	3056.473	117.3941	152.1033
98			8997.123	44.98561	55.62199	44.49759	44.49759		55.62199	2958.379	117.2202	152.5952
99			9094.732	45.47366	56.23202	44.98562	44.98562		56.23202	2860.282	117.045	153.0863
100			9192.345	45.96172	56.84208	45.47367	45.47367		56.84208	2762.182	116.8688	153.5766
101			9289.96	46.4498	57.45216	45.96173	45.96173		57.45216	2664.078	116.6917	154.0662
102			9387.576	46.93788	58.06225	46.4498	46.4498		58.06225	2565.974	116.514	154.5553
103			9485.193	47.42596	58.67236	46.93789	46.93789		58.67236	2467.869	116.3357	155.044
104			9582.812	47.91405	59.28246	47.42596	47.42596		59.28246	2369.762	116.157	155.5322
105			9680.43	48.40215	59.89257	47.91406	47.91406		59.89257	2271.656	115.9779	156.0201
106			9778.048	48.89024	60.50269	48.40215	48.40215		60.50269	2173.55	115.7986	156.5077
107			9875.665	49.37832	61.1128	48.89024	48.89024		61.1128	2075.445	115.619	156.9951
108			9973.282	49.86641	61.72291	49.37833	49.37833		61.72291	1977.339	115.4394	157.4822
109			10070.9	50.35449	62.33302	49.86641	49.86641		62.33302	1879.235	115.2597	157.9691
110			10168.51	50.84256	62.94312	50.3545	50.3545		62.94312	1781.133	115.0799	158.4559
111			10266.13	51.33063	63.5532	50.84256	50.84256		63.5532	1683.031	114.9002	158.9426
112			10363.74	51.81869	64.16328	51.33063	51.33063		64.16328	1584.931	114.7205	159.4291
113			10461.35	52.30674	64.77337	51.8187	51.8187		64.77337	1486.833	114.5408	159.9156
114			10558.96	52.79478	65.38344	52.30675	52.30675		65.38344	1388.736	114.3613	160.4019
115			10656.56	53.28282	65.99349	52.79479	52.79479		65.99349	1290.641	114.1818	160.8882
116			10754.17	53.77085	66.60353	53.28283	53.28283		66.60353	1192.547	114.0025	161.3744
117			10851.77	54.25887	67.21357	53.77085	53.77085		67.21357	1094.456	113.8234	161.8605
118			10949.38	54.74687	67.82359	54.25887	54.25887		67.82359	996.3661	113.6444	162.3466
119			11046.97	55.23487	68.4336	54.74688	54.74688		68.4336	898.2785	113.4655	162.8327
120			11144.57	55.72286	69.04359	55.23487	55.23487		69.04359	800.1929	113.2869	163.3187

E.3 Scenario 3 Output Results

Time	"cost per employe 3 (cpE3)"	"cost per workstation 3 (cpW3)"	"Data 3 (D3)"	"data 3 decomposition rate a (DDR3a)"	"data 3 maintenance employes (EM3)"	"Data 3 Maintenance Queue (DM3)"	"data 3 maintenance required (DMN3)"	"data 3 maintenance standard (MS3)"	"data 3 maintenance workstations (WM3)"	"data 3 population requirement (DR3)"	"data 3 production employes (EP3)"	"data 3 production function (Dp3)"
121			11242.17	56.21084	69.65358	55.72286	55.72286		69.65358	702.1092	113.1084	163.8047
122			11339.76	56.69881	70.26354	56.21083	56.21083		70.26354	604.0275	112.9301	164.2907
123			11437.35	57.18677	70.87352	56.69881	56.69881		70.87352	505.9477	112.752	164.7766
124			11534.94	57.67472	71.48346	57.18677	57.18677		71.48346	407.8699	112.5741	165.2625
125			11632.53	58.16265	72.09341	57.67472	57.67472		72.09341	309.794	112.3964	165.7484
126			11730.12	58.65059	72.70332	58.16265	58.16265		72.70332	211.7202	112.219	166.2343
127			11827.7	59.1385	73.31324	58.65059	58.65059		73.31324	113.6482	112.0417	166.7202
128			11925.28	59.62642	73.92314	59.13851	59.13851		73.92314	15.57829	111.8647	167.206
129			12022.86	60.11432	74.53302	59.62642	59.62642		74.53302	0	0	265.6649
130			12022.38	60.11187	75.14291	60.11433	60.11433		75.14291	0	0	233.5847
131			12022.38	60.11189	75.13985	60.11188	60.11188		75.13985	0	0	206.9782
132			12022.38	60.11189	75.13986	60.11189	60.11189		75.13986	0	0	184.8301
133			12022.38	60.11189	75.13987	60.1119	60.1119		75.13987	0	0	166.3794
134			12022.38	60.11189	75.13987	60.1119	60.1119		75.13987	0	0	150.9946
135			12022.38	60.11189	72.72475	60.1119	60.1119		75.13987	0	0	138.1529
136			12022.18	60.11091	65.40738	60.30796	60.30796		75.38494	0	0	127.4215
137			12021.53	60.10764	59.40386	60.96107	60.96107		76.20134	0	0	118.4729
138			12020.88	60.10441	54.51393	61.60695	61.60695		77.00869	0	0	111.0767
139			12020.29	60.10146	50.52871	62.19636	62.19636		77.74545	0	0	104.9702
140			12019.76	60.09882	47.27592	62.72458	62.72458		78.40572	0	0	99.92894
141			12019.3	60.09648	44.6168	63.19311	63.19311		78.99139	0	0	95.76665
142			12018.88	60.09442	42.43978	63.60508	63.60508		79.50636	0	0	92.32961
143			12018.52	60.09262	40.65504	63.96449	63.96449		79.95561	0	0	89.49104
144			12018.21	60.09106	39.1901	64.2758	64.2758		80.34475	0	0	87.14634
145			12017.95	60.08973	37.98636	64.54371	64.54371		80.67963	0	0	85.20934
146			12017.72	60.08858	36.9963	64.77295	64.77295		80.96619	0	0	83.60892
147			12017.52	60.0876	36.1813	64.96811	64.96811		81.21014	0	0	82.28641
148			12017.36	60.08678	35.50994	65.13353	65.13353		81.41691	0	0	81.19347
149			12017.22	60.08608	34.95655	65.27322	65.27322		81.59152	0	0	80.29014
150			12017.1	60.08549	34.50018	65.39077	65.39077		81.73846	0	0	79.54347

E.3 Scenario 3 Output Results

Time	"cost per employe 3 (cpE3)"	"cost per workstati on 3 (cpW3)"	"Data 3 (D3)"	"data 3 decomposition rate a (DDR3a)"	"data 3 maintena nce employe es (EM3)"	"Data 3 Maintena nce Queue (DM3)"	"data 3 maintena nce required (DMN3)"	"data 3 maintena nce standard (MS3)"	"data 3 maintena nce workstati ons (WM3)"	"data 3 populatio n requirem ent (DR3)"	"data 3 producti on employe es (EP3)"	"data 3 producti on functi on (Dp3)"
151			12017	60.085	34.12363	65.48943	65.48943		81.86179	0	0	78.92625
152			12016.92	60.08458	33.81285	65.57204	65.57204		81.96504	0	0	78.41602
153			12016.85	60.08424	33.55625	65.64105	65.64105		82.05132	0	0	77.99419
154			12016.79	60.08395	33.34434	65.69862	65.69862		82.12327	0	0	77.64545
155			12016.74	60.08371	33.1693	65.74656	65.74656		82.1832	0	0	77.35711
156			12016.7	60.08351	33.02468	65.78645	65.78645		82.23306	0	0	77.11871
157			12016.67	60.08334	32.90518	65.8196	65.8196		82.27449	0	0	76.92159
158			12016.64	60.08321	32.80642	65.84712	65.84712		82.3089	0	0	76.75861
159			12016.62	60.0831	32.7248	65.86996	65.86996		82.33746	0	0	76.62385
160			12016.6	60.083	32.65733	65.88892	65.88892		82.36115	0	0	76.51241

E.3 Scenario 3 Output Results

Time	"data 3 production goal (Dp3*)"	"data 3 production rate (DPR3)"	"data 3 production requirement (DPN3)"	"data 3 production standard (PS3)"	"data 3 production workstations (WP3)"	"data 3 special employees (SE3)"	"data 3 special workstations (SW3)"	"data 3 theoretical maintenance value (DTM3)"	"data type 3 maintenance rate (DMR3)"	"desired employees 1 (E1*)"	"desired workstations 3 (W3*)"	"employee 3 adjustment time (Eat3)"
1	110	24.58141	100	0.4	75.34294	1.5625	1.5625	0	0	91.48959	244.6285	5
2	110	34.13393	100		103.2968	1.5625	1.5625	0	0	102.9558	261.3527	
3	110	43.13965	100		129.379	1.5625	1.5625	0	0	111.0301	271.0512	
4	110	51.26591	100		152.7306	1.5625	1.5625	0	0	116.9124	277.0259	
5	110	58.42708	100		173.1861	1.5625	1.5625	0	0	121.3301	280.9172	
6	110	64.65067	100		190.8809	1.5625	1.5625	0	0	124.7286	283.5711	
7	110	70.01219	100		206.0688	1.5625	1.5625	0	0	127.3917	285.4496	
8	110	74.60404	100		219.0385	1.5625	1.5625	0	0	129.5084	286.8198	
9	110	78.52065	100		230.075	1.5625	1.5625	0	0	131.2093	287.8438	
10	110	81.85141	100		239.4427	1.5625	1.5625	0	0	132.5879	288.6246	
11	110	84.67771	100		247.3793	1.5625	1.5625	0	0	133.713	289.2296	
12	110	87.07193	100		254.0939	1.5625	1.5625	0	0	134.6363	289.7048	
13	110	89.0975	100		259.7686	1.5625	1.5625	0	0	135.3972	290.0823	
14	110	90.80941	100		264.5605	1.5625	1.5625	0	0	136.0265	290.3849	
15	110	92.25507	100		268.6041	1.5625	1.5625	0	0	136.5486	290.6294	
16	110	93.47509	100		272.0146	1.5625	1.5625	0	0	136.9827	290.8282	
17	110	94.50415	100		274.8898	1.5625	1.5625	0	0	137.3444	290.9908	
18	110	95.37176	100		277.3129	1.5625	1.5625	0	0	137.6462	291.1244	
19	110	96.10298	100		279.3544	1.5625	1.5625	0	0	137.8984	291.2346	
20	110	96.71911	100		281.074	1.5625	1.5625	0	0	138.1094	291.3256	
21	110	97.2381	100		282.5222	1.5625	1.5625	0	0	138.2861	291.4012	
22	110	97.6752	100		283.7416	1.5625	1.5625	0	0	138.4341	291.464	
23	110	98.04327	100		284.7682	1.5625	1.5625	0	0	138.5583	291.5164	
24	110	98.35316	100		285.6325	1.5625	1.5625	0	0	138.6625	291.56	
25	110	98.61404	100		286.36	1.5625	1.5625	0	0	138.7499	291.5965	
26	110	98.83366	100		286.9724	1.5625	1.5625	0	0	138.8233	291.627	
27	110	99.01851	100		287.4877	1.5625	1.5625	0	0	138.8849	291.6525	
28	110	99.17408	100		287.9214	1.5625	1.5625	0	0	138.9368	291.6739	
29	110	99.30501	100		288.2864	1.5625	1.5625	0	0	138.9803	291.6918	
30	110	99.41521	100		288.5936	1.5625	1.5625	0	0	139.0169	291.7069	

E.3 Scenario 3 Output Results

Time	"data 3 production goal (Dp3*)"	"data 3 production rate (DPR3)"	"data 3 production requirement (DPN3)"	"data 3 production standard (PS3)"	"data 3 production workstations (WP3)"	"data 3 special employees (SE3)"	"data 3 special workstations (SW3)"	"data 3 theoretical maintenance value (DTM3)"	"data type 3 maintenance rate (DMR3)"	"desired employees 1 (E1*)"	"desired workstations 3 (W3*)"	"employee 3 adjustment time (Eat3)"
31	110	99.50793	100		288.8521	1.5625	1.5625	0	0	139.0476	291.7195	
32	110	99.58596	100		289.0695	1.5625	1.5625	0	0	139.0735	291.7301	
33	110	99.65162	100		289.2526	1.5625	1.5625	0	0	139.0953	291.739	
34	110	99.70688	100		289.4066	1.5625	1.5625	0	0	139.1135	291.7465	
35	110	99.75336	100		289.5361	1.5625	1.5625	0	0	139.1289	291.7528	
36	110	99.79249	100		289.6452	1.5625	1.5625	0	0	139.1419	291.7581	
37	110	99.8254	100		289.7369	1.5625	1.5625	0	0	139.1527	291.7625	
38	110	99.8531	100		289.8141	1.5625	1.5625	0	0	139.1619	291.7662	
39	110	99.8764	100		289.879	1.5625	1.5625	0	0	139.1696	291.7693	
40	110	99.896	100		289.9337	1.5625	1.5625	0	0	139.1761	291.772	
41	110	99.91251	100		289.9796	1.5625	1.5625	0	0	139.1815	291.7742	
42	110	99.92638	100		290.0183	1.5625	1.5625	0	0	139.1861	291.7761	
43	110	99.93806	100		290.0508	1.5625	1.5625	0	0	139.19	291.7776	
44	110	99.94787	100		290.0782	1.5625	1.5625	0	0	139.1932	291.779	
45	110	99.95615	100		290.1013	1.5625	1.5625	0	0	139.1959	291.7801	
46	110	99.9631	100		290.1206	1.5625	1.5625	0	0	139.1982	291.781	
47	110	99.96896	100		290.137	1.5625	1.5625	0	0	139.2002	291.7818	
48	110	99.97388	100		290.1507	1.5625	1.5625	0	0	139.2018	291.7825	
49	110	99.97801	100		290.1622	1.5625	1.5625	0	0	139.2032	291.7831	
50	110	99.98151	100		290.1719	1.5625	1.5625	0	0	139.2043	291.7835	
51	110	99.98444	100		290.1801	1.5625	1.5625	0	0	139.2053	291.7839	
52	110	99.98692	100		290.187	1.5625	1.5625	0	0	139.2061	291.7842	
53	110	99.98899	100		290.1928	1.5625	1.5625	0	0	139.2068	291.7845	
54	110	99.99075	100		290.1977	1.5625	1.5625	0	0	139.2074	291.7848	
55	110	99.99222	100		290.2018	1.5625	1.5625	0	0	139.2078	291.7849	
56	110	99.99345	100		290.2052	1.5625	1.5625	0	0	139.2083	291.7851	
57	110	99.9945	100		290.2081	1.5625	1.5625	0	0	139.2086	291.7852	
58	110	99.99537	100		290.2106	1.5625	1.5625	0	0	139.2089	291.7853	
59	110	99.9961	100		290.2126	1.5625	1.5625	0	0	139.2091	291.7855	
60	110	99.99673	100		290.2144	1.5625	1.5625	0	0	139.2093	291.7856	

E.3 Scenario 3 Output Results

Time	"data 3 production goal (Dp3*)"	"data 3 production rate (DPR3)"	"data 3 production requirement (DPN3)"	"data 3 production standard (PS3)"	"data 3 production workstations (WP3)"	"data 3 special employees (SE3)"	"data 3 special workstations (SW3)"	"data 3 theoretical maintenance value (DTM3)"	"data type 3 maintenance rate (DMR3)"	"desired employees 1 (E1*)"	"desired workstations 3 (W3*)"	"employee 3 adjustment time (Eat3)"
61	136.9725	85.64001	100		256.5002	1.5625	1.5625	26.97246	26.97246	155.5094	325.9505	
62	137.3376	87.50123	100		261.7392	1.5625	1.5625	27.33758	27.33758	156.7303	327.2565	
63	137.764	89.06644	100		266.17	1.5625	1.5625	27.76396	27.76396	157.8468	328.5095	
64	138.1993	90.40426	100		269.9712	1.5625	1.5625	28.19934	28.19934	158.8548	329.6734	
65	138.6425	91.54692	100		273.2323	1.5625	1.5625	28.64248	28.64248	159.7723	330.7648	
66	139.0923	92.52235	100		276.0312	1.5625	1.5625	29.09229	29.09229	160.6138	331.7966	
67	139.5478	93.35467	100		278.4348	1.5625	1.5625	29.54778	29.54778	161.3916	332.7791	
68	140.0081	94.0646	100		280.5005	1.5625	1.5625	30.00811	30.00811	162.1158	333.7207	
69	140.4726	94.66998	100		282.2779	1.5625	1.5625	30.47258	30.47258	162.7947	334.6281	
70	140.9406	95.18608	100		283.809	1.5625	1.5625	30.94059	30.94059	163.4354	335.5067	
71	141.4116	95.62598	100		285.1302	1.5625	1.5625	31.4116	31.4116	164.0437	336.3612	
72	141.8852	96.00083	100		286.2722	1.5625	1.5625	31.88517	31.88517	164.6245	337.1953	
73	142.3609	96.32023	100		287.2615	1.5625	1.5625	32.36093	32.36093	165.1821	338.0122	
74	142.8386	96.59229	100		288.1207	1.5625	1.5625	32.83856	32.83856	165.72	338.8145	
75	143.3178	96.82404	100		288.8689	1.5625	1.5625	33.31778	33.31778	166.241	339.6043	
76	143.7983	97.02137	100		289.5225	1.5625	1.5625	33.79834	33.79834	166.7479	340.3836	
77	144.2801	97.18936	100		290.0954	1.5625	1.5625	34.28005	34.28005	167.2426	341.1538	
78	144.7628	97.33233	100		290.5997	1.5625	1.5625	34.76275	34.76275	167.7271	341.9164	
79	145.2463	97.454	100		291.0454	1.5625	1.5625	35.24628	35.24628	168.2028	342.6724	
80	145.7305	97.55745	100		291.4412	1.5625	1.5625	35.73053	35.73053	168.6712	343.4229	
81	146.2154	97.64541	100		291.7945	1.5625	1.5625	36.21537	36.21537	169.1332	344.1686	
82	146.7007	97.72014	100		292.1115	1.5625	1.5625	36.70074	36.70074	169.5899	344.9102	
83	147.1865	97.78359	100		292.3976	1.5625	1.5625	37.18654	37.18654	170.042	345.6483	
84	147.6727	97.83742	100		292.6574	1.5625	1.5625	37.67271	37.67271	170.4902	346.3834	
85	148.1592	97.88302	100		292.8947	1.5625	1.5625	38.1592	38.1592	170.9353	347.1161	
86	148.646	97.92165	100		293.1129	1.5625	1.5625	38.64595	38.64595	171.3775	347.8465	
87	149.1329	97.95428	100		293.3148	1.5625	1.5625	39.13293	39.13293	171.8175	348.575	
88	149.6201	97.9818	100		293.5027	1.5625	1.5625	39.62011	39.62011	172.2555	349.3021	
89	150.1075	98.005	100		293.6789	1.5625	1.5625	40.10744	40.10744	172.6918	350.0277	
90	150.5949	98.02446	100		293.8448	1.5625	1.5625	40.59492	40.59492	173.1268	350.7523	

E.3 Scenario 3 Output Results

Time	"data 3 production goal (Dp3*)"	"data 3 production rate (DPR3)"	"data 3 production requirement (DPN3)"	"data 3 production standard (PS3)"	"data 3 production workstations (WP3)"	"data 3 special employees (SE3)"	"data 3 special workstations (SW3)"	"data 3 theoretical maintenance value (DTM3)"	"data type 3 maintenance rate (DMR3)"	"desired employees 1 (E1*)"	"desired workstations 3 (W3*)"	"employee 3 adjustment time (Eat3)"
91	151.0825	98.04076	100		294.0023	1.5625	1.5625	41.0825	41.0825	173.5607	351.4758	
92	151.5702	98.05437	100		294.1523	1.5625	1.5625	41.57019	41.57019	173.9935	352.1986	
93	152.058	98.06566	100		294.2961	1.5625	1.5625	42.05796	42.05796	174.4256	352.9206	
94	152.5458	98.07496	100		294.4346	1.5625	1.5625	42.54579	42.54579	174.8571	353.6421	
95	153.0337	98.08259	100		294.5685	1.5625	1.5625	43.03367	43.03367	175.2881	354.3631	
96	153.5216	98.08877	100		294.6986	1.5625	1.5625	43.52161	43.52161	175.7187	355.0836	
97	154.0096	98.09371	100		294.8254	1.5625	1.5625	44.00958	44.00958	176.1489	355.8039	
98	154.4976	98.09764	100		294.9494	1.5625	1.5625	44.49759	44.49759	176.5789	356.5238	
99	154.9856	98.10065	100		295.071	1.5625	1.5625	44.98561	44.98561	177.0088	357.2436	
100	155.4737	98.1029	100		295.1906	1.5625	1.5625	45.47366	45.47366	177.4385	357.9631	
101	155.9617	98.10449	100		295.3085	1.5625	1.5625	45.96173	45.96173	177.8682	358.6825	
102	156.4498	98.10551	100		295.425	1.5625	1.5625	46.4498	46.4498	178.2978	359.4018	
103	156.9379	98.10608	100		295.5402	1.5625	1.5625	46.93789	46.93789	178.7274	360.121	
104	157.426	98.10624	100		295.6544	1.5625	1.5625	47.42596	47.42596	179.1571	360.8401	
105	157.9141	98.10604	100		295.7678	1.5625	1.5625	47.91406	47.91406	179.5869	361.5592	
106	158.4021	98.10556	100		295.8804	1.5625	1.5625	48.40215	48.40215	180.0167	362.2783	
107	158.8902	98.10481	100		295.9924	1.5625	1.5625	48.89024	48.89024	180.4467	362.9973	
108	159.3783	98.10388	100		296.1039	1.5625	1.5625	49.37832	49.37832	180.8767	363.7164	
109	159.8664	98.10273	100		296.215	1.5625	1.5625	49.86641	49.86641	181.3069	364.4355	
110	160.3545	98.10144	100		296.3257	1.5625	1.5625	50.3545	50.3545	181.7373	365.1546	
111	160.8426	98.10001	100		296.4362	1.5625	1.5625	50.84256	50.84256	182.1678	365.8738	
112	161.3306	98.0985	100		296.5464	1.5625	1.5625	51.33062	51.33062	182.5984	366.593	
113	161.8187	98.09686	100		296.6564	1.5625	1.5625	51.81869	51.81869	183.0293	367.3123	
114	162.3067	98.09516	100		296.7664	1.5625	1.5625	52.30674	52.30674	183.4603	368.0316	
115	162.7948	98.09339	100		296.8762	1.5625	1.5625	52.79479	52.79479	183.8915	368.7509	
116	163.2828	98.09157	100		296.986	1.5625	1.5625	53.28282	53.28282	184.3229	369.4703	
117	163.7709	98.08968	100		297.0956	1.5625	1.5625	53.77085	53.77085	184.7545	370.1898	
118	164.2589	98.08778	100		297.2053	1.5625	1.5625	54.25886	54.25886	185.1863	370.9093	
119	164.7469	98.08582	100		297.315	1.5625	1.5625	54.74688	54.74688	185.6183	371.629	
120	165.2349	98.08385	100		297.4246	1.5625	1.5625	55.23487	55.23487	186.0505	372.3487	



E.3 Scenario 3 Output Results

Time	"data 3 production goal (Dp3*)"	"data 3 production rate (DPR3)"	"data 3 production requirement (DPN3)"	"data 3 production standard (PS3)"	"data 3 production workstations (WP3)"	"data 3 special employees (SE3)"	"data 3 special workstations (SW3)"	"data 3 theoretical maintenance value (DTM3)"	"data type 3 maintenance rate (DMR3)"	"desired employees 1 (E1*)"	"desired workstations 3 (W3*)"	"employee 3 adjustment time (Eat3)"
121	165.7229	98.08186	100		297.5343	1.5625	1.5625	55.72287	55.72287	186.4829	373.0685	
122	166.2108	98.07984	100		297.644	1.5625	1.5625	56.21083	56.21083	186.9155	373.7883	
123	166.6988	98.0778	100		297.7538	1.5625	1.5625	56.69881	56.69881	187.3484	374.5083	
124	167.1868	98.07576	100		297.8636	1.5625	1.5625	57.18676	57.18676	187.7814	375.2282	
125	167.6747	98.07371	100		297.9734	1.5625	1.5625	57.67472	57.67472	188.2146	375.9483	
126	168.1627	98.07166	100		298.0834	1.5625	1.5625	58.16265	58.16265	188.6481	376.6685	
127	168.6506	98.06958	100		298.1933	1.5625	1.5625	58.65059	58.65059	189.0817	377.3888	
128	84.7168	98.0675	15.57829		298.3033	1.5625	1.5625	59.13851	59.13851	94.92313	189.3844	
129	69.62642	0	0		0	1.5625	1.5625	255.6649	59.6264	44.25671	89.90906	
130	70.11433	0	0		0	1.5625	1.5625	223.5847	60.11433	43.20695	90.3093	
131	70.11188	0	0		0	1.5625	1.5625	196.9782	60.11187	41.9347	90.02755	
132	70.11189	0	0		0	1.5625	1.5625	174.8301	60.11189	40.7492	89.70463	
133	70.11189	0	0		0	1.5625	1.5625	156.3794	60.11189	39.64882	89.34396	
134	70.11189	0	0		0	1.5625	1.5625	140.9946	60.11189	38.63296	88.95357	
135	70.11189	0	0		0	1.5625	1.5625	128.1529	59.91583	37.7004	88.54227	
136	70.30795	0	0		0	1.5625	1.5625	117.4215	59.45779	36.95228	88.36568	
137	70.96107	0	0		0	1.5625	1.5625	108.4729	59.46176	36.5167	88.75722	
138	71.60695	0	0		0	1.5625	1.5625	101.0767	59.515	36.15036	89.1438	
139	72.19637	0	0		0	1.5625	1.5625	94.97021	59.57325	35.82727	89.47359	
140	72.72458	0	0		0	1.5625	1.5625	89.92894	59.63029	35.5428	89.74847	
141	73.19312	0	0		0	1.5625	1.5625	85.76665	59.68451	35.29419	89.97602	
142	73.60509	0	0		0	1.5625	1.5625	82.32961	59.73501	35.07858	90.16375	
143	73.96449	0	0		0	1.5625	1.5625	79.49104	59.78131	34.89286	90.31831	
144	74.2758	0	0		0	1.5625	1.5625	77.14634	59.82316	34.7339	90.4455	
145	74.54371	0	0		0	1.5625	1.5625	75.20934	59.86049	34.59854	90.55006	
146	74.77295	0	0		0	1.5625	1.5625	73.60892	59.89342	34.48382	90.63604	
147	74.96811	0	0		0	1.5625	1.5625	72.28641	59.92218	34.38699	90.70678	
148	75.13353	0	0		0	1.5625	1.5625	71.19347	59.94709	34.30551	90.76498	
149	75.27322	0	0		0	1.5625	1.5625	70.29014	59.96852	34.23716	90.81293	
150	75.39077	0	0		0	1.5625	1.5625	69.54347	59.98683	34.17996	90.85243	

E.3 Scenario 3 Output Results

Time	"data 3 production goal (Dp3*)"	"data 3 production rate (DPR3)"	"data 3 production requirement (DPN3)"	"data 3 production standard (PS3)"	"data 3 production workstations (WP3)"	"data 3 special employees (SE3)"	"data 3 special workstations (SW3)"	"data 3 theoretical maintenance value (DTM3)"	"data type 3 maintenance rate (DMR3)"	"desired employees 1 (E1*)"	"desired workstations 3 (W3*)"	"employee 3 adjustment time (Eat3)"
151	75.48943	0	0		0	1.5625	1.5625	68.92625	60.00239	34.13219	90.88499	
152	75.57204	0	0		0	1.5625	1.5625	68.41602	60.01556	34.09236	90.91186	
153	75.64105	0	0		0	1.5625	1.5625	67.99419	60.02667	34.05919	90.93401	
154	75.69862	0	0		0	1.5625	1.5625	67.64545	60.03601	34.03161	90.9523	
155	75.74656	0	0		0	1.5625	1.5625	67.35711	60.04382	34.00869	90.96739	
156	75.78645	0	0		0	1.5625	1.5625	67.11871	60.05036	33.98967	90.97987	
157	75.8196	0	0		0	1.5625	1.5625	66.92159	60.05581	33.97389	90.99016	
158	75.84712	0	0		0	1.5625	1.5625	66.75861	60.06036	33.9608	90.99867	
159	75.86996	0	0		0	1.5625	1.5625	66.62385	60.06415	33.94995	91.0057	
160	75.88892	0	0		0	1.5625	1.5625	66.51241	60.0673	33.94097	91.01153	

E.3 Scenario 3 Output Results

Time	"employee 3 maintenance exponent (eem3)"	"employee 3 production exponent (eep3)"	"employee 3 special exponent (ees3)"	"Employees 3 (E3)"	FINAL TIME	"improvement factor (if3)"	INITIAL TIME	"relative production (Dp3*/Dp3)"	SAVEPE R	"special data 3 production rate (SPR3)"	"special data 3 production standard (SPS3)"	"Special Data 3 Requirement (SN3)"
1	0.1	0.2	0.3	28.76218	160	-2.87633	0	3.180899	1	10	6.4	10
2				41.30766		-1.77478		2.492414		10		10
3				53.63729		-1.1809		2.070018		10		10
4				65.11585		-0.82413		1.795452		10		10
5				75.47516		-0.5923		1.607551		10		10
6				84.64616		-0.43281		1.47353		10		10
7				92.66265		-0.31833		1.37479		10		10
8				99.60847		-0.2335		1.300174		10		10
9				105.5884		-0.16907		1.242648		10		10
10				110.7126		-0.11919		1.197586		10		10
11				115.0877		-0.07998		1.161836		10		10
12				118.8127		-0.04878		1.13318		10		10
13				121.9774		-0.02372		1.110018		10		10
14				124.6614		-0.00342		1.091168		10		10
15				126.9344		0.013125		1.075741		10		10
16				128.8573		0.026684		1.063058		10		10
17				130.4823		0.037844		1.05259		10		10
18				131.8548		0.047064		1.043923		10		10
19				133.013		0.054703		1.036729		10		10
20				133.9901		0.061048		1.030743		10		10
21				134.814		0.066329		1.025755		10		10
22				135.5084		0.070733		1.021591		10		10
23				136.0936		0.074411		1.018111		10		10
24				136.5865		0.077485		1.015199		10		10
25				137.0017		0.080058		1.01276		10		10
26				137.3513		0.082214		1.010717		10		10
27				137.6457		0.08402		1.009003		10		10
28				137.8936		0.085535		1.007565		10		10
29				138.1022		0.086807		1.006358		10		10
30				138.2778		0.087874		1.005345		10		10

E.3 Scenario 3 Output Results

Time	"employee 3 maintenance exponent (eem3)"	"employee 3 production exponent (eep3)"	"employee 3 special exponent (ees3)"	"Employees 3 (E3)"	FINAL TIME	"improvement factor (if3)"	INITIAL TIME	"relative production (Dp3*/Dp3)"	SAVEPE R	"special data 3 production rate (SPR3)"	"special data 3 production standard (SPS3)"	"Special Data 3 Requirement (SN3)"
31				138.4256		0.088771		1.004493		10		10
32				138.55		0.089524		1.003778		10		10
33				138.6547		0.090156		1.003177		10		10
34				138.7428		0.090688		1.002672		10		10
35				138.817		0.091135		1.002247		10		10
36				138.8794		0.091511		1.00189		10		10
37				138.9319		0.091827		1.00159		10		10
38				138.976		0.092092		1.001337		10		10
39				139.0132		0.092316		1.001125		10		10
40				139.0445		0.092504		1.000946		10		10
41				139.0708		0.092662		1.000796		10		10
42				139.093		0.092795		1.00067		10		10
43				139.1116		0.092906		1.000563		10		10
44				139.1273		0.093		1.000474		10		10
45				139.1405		0.09308		1.000399		10		10
46				139.1516		0.093146		1.000336		10		10
47				139.1609		0.093202		1.000282		10		10
48				139.1687		0.093249		1.000238		10		10
49				139.1754		0.093289		1.0002		10		10
50				139.1809		0.093322		1.000168		10		10
51				139.1856		0.09335		1.000142		10		10
52				139.1895		0.093374		1.000119		10		10
53				139.1929		0.093394		1.0001		10		10
54				139.1956		0.09341		1.000084		10		10
55				139.198		0.093425		1.000071		10		10
56				139.2		0.093436		1.000059		10		10
57				139.2016		0.093446		1.00005		10		10
58				139.203		0.093455		1.000042		10		10
59				139.2042		0.093462		1.000035		10		10
60				139.2052		0.093468		1.00003		10		10

E.3 Scenario 3 Output Results

Time	"employee 3 maintenance exponent (eem3)"	"employee 3 production exponent (eep3)"	"employee 3 special exponent (ees3)"	"Employees 3 (E3)"	FINAL TIME	"improvement factor (if3)"	INITIAL TIME	"relative production (Dp3*/Dp3)"	SAVEPE R	"special data 3 production rate (SPR3)"	"special data 3 production standard (SPS3)"	"Special Data 3 Requirement (SN3)"
61				139.206		0.093473		1.117117		10		10
62				142.4667		0.112601		1.100119		10		10
63				145.3194		0.128661		1.086206		10		10
64				147.8249		0.142274		1.074615		10		10
65				150.0309		0.153899		1.064929		10		10
66				151.9792		0.163897		1.056815		10		10
67				153.7061		0.172555		1.050002		10		10
68				155.2432		0.180106		1.04427		10		10
69				156.6177		0.186738		1.03944		10		10
70				157.8531		0.192604		1.035364		10		10
71				158.9696		0.19783		1.031919		10		10
72				159.9844		0.20252		1.029004		10		10
73				160.9124		0.206759		1.026534		10		10
74				161.7664		0.210618		1.02444		10		10
75				162.5571		0.214157		1.022663		10		10
76				163.2939		0.217425		1.021152		10		10
77				163.9847		0.220464		1.019868		10		10
78				164.6363		0.223307		1.018774		10		10
79				165.2544		0.225985		1.017842		10		10
80				165.8441		0.228522		1.017046		10		10
81				166.4095		0.230938		1.016367		10		10
82				166.9543		0.233251		1.015786		10		10
83				167.4814		0.235475		1.015289		10		10
84				167.9935		0.237624		1.014862		10		10
85				168.4928		0.239706		1.014496		10		10
86				168.9813		0.241732		1.01418		10		10
87				169.4606		0.243709		1.013908		10		10
88				169.9319		0.245643		1.013673		10		10
89				170.3967		0.247539		1.01347		10		10
90				170.8557		0.249403		1.013293		10		10

E.3 Scenario 3 Output Results

Time	"employee 3 maintenance exponent (eem3)"	"employee 3 production exponent (eep3)"	"employee 3 special exponent (ees3)"	"Employees 3 (E3)"	FINAL TIME	"improvement factor (if3)"	INITIAL TIME	"relative production (Dp3*/Dp3)"	SAVEPE R	"special data 3 production rate (SPR3)"	"special data 3 production standard (SPS3)"	"Special Data 3 Requirement (SN3)"
91				171.3099		0.251238		1.013138		10		10
92				171.7601		0.253047		1.013003		10		10
93				172.2068		0.254833		1.012885		10		10
94				172.6505		0.256599		1.012781		10		10
95				173.0918		0.258346		1.012688		10		10
96				173.5311		0.260077		1.012606		10		10
97				173.9686		0.261793		1.012533		10		10
98				174.4047		0.263494		1.012467		10		10
99				174.8395		0.265183		1.012407		10		10
100				175.2734		0.26686		1.012353		10		10
101				175.7064		0.268526		1.012303		10		10
102				176.1388		0.270182		1.012258		10		10
103				176.5706		0.271828		1.012215		10		10
104				177.002		0.273464		1.012176		10		10
105				177.433		0.275092		1.012139		10		10
106				177.8638		0.27671		1.012104		10		10
107				178.2944		0.278321		1.012072		10		10
108				178.7248		0.279924		1.01204		10		10
109				179.1552		0.281519		1.01201		10		10
110				179.5855		0.283107		1.011982		10		10
111				180.0159		0.284687		1.011954		10		10
112				180.4463		0.286261		1.011927		10		10
113				180.8767		0.287827		1.011901		10		10
114				181.3072		0.289387		1.011876		10		10
115				181.7378		0.29094		1.011851		10		10
116				182.1686		0.292486		1.011826		10		10
117				182.5995		0.294026		1.011802		10		10
118				183.0305		0.295559		1.011779		10		10
119				183.4616		0.297086		1.011756		10		10
120				183.893		0.298607		1.011733		10		10

E.3 Scenario 3 Output Results

Time	"employee 3 maintenance exponent (eem3)"	"employee 3 production exponent (eep3)"	"employee 3 special exponent (ees3)"	"Employees 3 (E3)"	FINAL TIME	"improvement factor (if3)"	INITIAL TIME	"relative production (Dp3*/Dp3)"	SAVEPE R	"special data 3 production rate (SPR3)"	"special data 3 production standard (SPS3)"	"Special Data 3 Requirement (SN3)"
121				184.3245		0.300121		1.01171		10		10
122				184.7562		0.30163		1.011688		10		10
123				185.188		0.303132		1.011666		10		10
124				185.6201		0.304628		1.011644		10		10
125				186.0524		0.306118		1.011622		10		10
126				186.4848		0.307603		1.0116		10		10
127				186.9174		0.309081		1.011579		10		10
128				187.3503		0.310554		0.506661		10		10
129				168.8649		0.24153		0.262084		10		10
130				143.9432		0.122132		0.300167		10		10
131				123.796		-0.00768		0.33874		10		10
132				107.4237		-0.14715		0.379331		10		10
133				94.08882		-0.29472		0.421398		10		10
134				83.20082		-0.44847		0.464334		10		10
135				74.28725		-0.60615		0.507495		10		10
136				66.96988		-0.76536		0.551775		10		10
137				60.96636		-0.92306		0.598965		10		10
138				56.07643		-1.07521		0.644662		10		10
139				52.09121		-1.21929		0.68778		10		10
140				48.83842		-1.35346		0.727763		10		10
141				46.1793		-1.4765		0.764286		10		10
142				44.00228		-1.58777		0.797199		10		10
143				42.21754		-1.68715		0.826502		10		10
144				40.7526		-1.77492		0.852311		10		10
145				39.54886		-1.85167		0.87483		10		10
146				38.5588		-1.91823		0.894318		10		10
147				37.7438		-1.97551		0.911063		10		10
148				37.07244		-2.02451		0.925364		10		10
149				36.51905		-2.06618		0.937515		10		10
150				36.06268		-2.10147		0.947793		10		10

E.3 Scenario 3 Output Results

Time	"employee 3 maintenance exponent (eem3)"	"employee 3 production exponent (eep3)"	"employee 3 special exponent (ees3)"	"Employees 3 (E3)"	FINAL TIME	"improvement factor (if3)"	INITIAL TIME	"relative production (Dp3*/Dp3)"	SAVEPE R	"special data 3 production rate (SPR3)"	"special data 3 production standard (SPS3)"	"Special Data 3 Requirement (SN3)"
151				35.68613		-2.13124		0.956455		10		10
152				35.37535		-2.15626		0.963732		10		10
153				35.11875		-2.17724		0.969829		10		10
154				34.90684		-2.19478		0.974927		10		10
155				34.7318		-2.20943		0.97918		10		10
156				34.58718		-2.22164		0.982725		10		10
157				34.46768		-2.2318		0.985674		10		10
158				34.36892		-2.24025		0.988125		10		10
159				34.2873		-2.24727		0.990161		10		10
160				34.21983		-2.2531		0.991851		10		10



E.3 Scenario 3 Output Results

Time	"special data 3 requirement rate (SNR3)"	"technical efficiency 3 (TE3)"	TIME STEP	"total base 3 cost (tBc3)"	"total base employe 3 cost (cBE3)"	"total base workstati on 3 cost (cBW3)"	"total employe 3 cost (cE3)"	"total optimize d 3 cost (tc3)"	"total workstati on cost (cW3)"	"worksta tion 3 adjustme nt time (Wat3)"	"worksta tion 3 maintena nce exponent (ewm3)"	"worksta tion 3 producti on exponent (ewp3)"
1	10	3.876327	1	1935320	836320	1099000	230097.4	499266.4	269169	6	0.9	0.8
2		2.774777		1935320	836320	1099000	330461.3	697468.8	367007.5			
3		2.180904		1935320	836320	1099000	429098.3	887393.6	458295.3			
4		1.824134		1935320	836320	1099000	520926.8	1060953	540026			
5		1.592304		1935320	836320	1099000	603801.3	1215421	611620.1			
6		1.432805		1935320	836320	1099000	677169.3	1350721	673551.8			
7		1.318328		1935320	836320	1099000	741301.2	1468011	726709.6			
8		1.233496		1935320	836320	1099000	796867.8	1568971	772103.6			
9		1.169068		1935320	836320	1099000	844707.6	1655439	810731.2			
10		1.119187		1935320	836320	1099000	885700.9	1729219	843518.2			
11		1.079979		1935320	836320	1099000	920701.4	1791998	871296.2			
12		1.048784		1935320	836320	1099000	950501.9	1845299	894797.4			
13		1.02372		1935320	836320	1099000	975819.6	1890479	914659			
14		1.003421		1935320	836320	1099000	997291.1	1928722	931430.4			
15		0.986875		1935320	836320	1099000	1015475	1961059	945583.2			
16		0.973316		1935320	836320	1099000	1030858	1988378	957519.8			
17		0.962156		1935320	836320	1099000	1043859	2011442	967582.9			
18		0.952936		1935320	836320	1099000	1054838	2030902	976063.8			
19		0.945297		1935320	836320	1099000	1064104	2047314	983209.1			
20		0.938952		1935320	836320	1099000	1071921	2061149	989227.7			
21		0.933671		1935320	836320	1099000	1078512	2072808	994296.3			
22		0.929267		1935320	836320	1099000	1084067	2082632	998564.3			
23		0.925589		1935320	836320	1099000	1088748	2090906	1002158			
24		0.922515		1935320	836320	1099000	1092692	2097875	1005183			
25		0.919942		1935320	836320	1099000	1096014	2103742	1007729			
26		0.917786		1935320	836320	1099000	1098811	2108683	1009872			
27		0.91598		1935320	836320	1099000	1101166	2112842	1011676			
28		0.914465		1935320	836320	1099000	1103149	2116342	1013194			
29		0.913193		1935320	836320	1099000	1104818	2119289	1014471			
30		0.912126		1935320	836320	1099000	1106223	2121769	1015546			

E.3 Scenario 3 Output Results

Time	"special data 3 requirement rate (SNR3)"	"technical efficiency 3 (TE3)"	TIME STEP	"total base 3 cost (tBc3)"	"total base employe 3 cost (cBE3)"	"total base workstati on 3 cost (cBW3)"	"total employe 3 cost (cE3)"	"total optimize d 3 cost (tc3)"	"total workstati on cost (cW3)"	"worksta tion 3 adjustme nt time (Wat3)"	"worksta tion 3 maintena nce exponent (ewm3)"	"worksta tion 3 producti on exponent (ewp3)"
31		0.911229		1935320	836320	1099000	1107405	2123856	1016451			
32		0.910476		1935320	836320	1099000	1108400	2125613	1017212			
33		0.909844		1935320	836320	1099000	1109238	2127091	1017853			
34		0.909312		1935320	836320	1099000	1109943	2128334	1018392			
35		0.908865		1935320	836320	1099000	1110536	2129381	1018845			
36		0.908489		1935320	836320	1099000	1111035	2130262	1019227			
37		0.908173		1935320	836320	1099000	1111455	2131003	1019548			
38		0.907908		1935320	836320	1099000	1111808	2131627	1019818			
39		0.907684		1935320	836320	1099000	1112106	2132151	1020045			
40		0.907496		1935320	836320	1099000	1112356	2132593	1020237			
41		0.907338		1935320	836320	1099000	1112567	2132964	1020398			
42		0.907205		1935320	836320	1099000	1112744	2133277	1020533			
43		0.907094		1935320	836320	1099000	1112893	2133540	1020647			
44		0.907		1935320	836320	1099000	1113018	2133761	1020743			
45		0.90692		1935320	836320	1099000	1113124	2133947	1020823			
46		0.906854		1935320	836320	1099000	1113212	2134104	1020891			
47		0.906798		1935320	836320	1099000	1113287	2134235	1020948			
48		0.906751		1935320	836320	1099000	1113350	2134346	1020996			
49		0.906711		1935320	836320	1099000	1113403	2134440	1021037			
50		0.906678		1935320	836320	1099000	1113447	2134518	1021071			
51		0.90665		1935320	836320	1099000	1113485	2134584	1021099			
52		0.906626		1935320	836320	1099000	1113516	2134640	1021123			
53		0.906606		1935320	836320	1099000	1113543	2134687	1021144			
54		0.90659		1935320	836320	1099000	1113565	2134726	1021161			
55		0.906575		1935320	836320	1099000	1113584	2134759	1021175			
56		0.906564		1935320	836320	1099000	1113600	2134787	1021187			
57		0.906554		1935320	836320	1099000	1113613	2134810	1021197			
58		0.906545		1935320	836320	1099000	1113624	2134830	1021206			
59		0.906538		1935320	836320	1099000	1113634	2134847	1021213			
60		0.906532		1935320	836320	1099000	1113642	2134861	1021219			

E.3 Scenario 3 Output Results

Time	"special data 3 requirement rate (SNR3)"	"technical efficiency 3 (TE3)"	TIME STEP	"total base 3 cost (tBc3)"	"total base employe 3 cost (cBE3)"	"total base workstati on 3 cost (cBW3)"	"total employe 3 cost (cE3)"	"total optimize d 3 cost (tc3)"	"total workstati on cost (cW3)"	"worksta tion 3 adjustme nt time (Wat3)"	"worksta tion 3 maintena nce exponent (ewm3)"	"worksta tion 3 producti on exponent (ewp3)"
61		0.906527		1935320	836320	1099000	1113648	2134872	1021224			
62		0.887399		1935320	836320	1099000	1139734	2180892	1041158			
63		0.871339		1935320	836320	1099000	1162555	2221087	1058531			
64		0.857726		1935320	836320	1099000	1182599	2256339	1073740			
65		0.846101		1935320	836320	1099000	1200247	2287340	1087093			
66		0.836103		1935320	836320	1099000	1215833	2314690	1098857			
67		0.827445		1935320	836320	1099000	1229649	2338911	1109262			
68		0.819894		1935320	836320	1099000	1241946	2360452	1118506			
69		0.813262		1935320	836320	1099000	1252942	2379701	1126759			
70		0.807396		1935320	836320	1099000	1262825	2396991	1134165			
71		0.80217		1935320	836320	1099000	1271757	2412607	1140850			
72		0.79748		1935320	836320	1099000	1279875	2426795	1146919			
73		0.793241		1935320	836320	1099000	1287300	2439763	1152463			
74		0.789382		1935320	836320	1099000	1294131	2451691	1157560			
75		0.785843		1935320	836320	1099000	1300457	2462732	1162275			
76		0.782575		1935320	836320	1099000	1306351	2473016	1166665			
77		0.779536		1935320	836320	1099000	1311877	2482656	1170778			
78		0.776693		1935320	836320	1099000	1317090	2491745	1174655			
79		0.774015		1935320	836320	1099000	1322036	2500366	1178330			
80		0.771478		1935320	836320	1099000	1326753	2508587	1181834			
81		0.769062		1935320	836320	1099000	1331276	2516468	1185192			
82		0.766749		1935320	836320	1099000	1335634	2524059	1188425			
83		0.764525		1935320	836320	1099000	1339851	2531403	1191552			
84		0.762376		1935320	836320	1099000	1343948	2538536	1194588			
85		0.760294		1935320	836320	1099000	1347943	2545490	1197547			
86		0.758268		1935320	836320	1099000	1351851	2552291	1200440			
87		0.756291		1935320	836320	1099000	1355685	2558962	1203277			
88		0.754357		1935320	836320	1099000	1359456	2565522	1206066			
89		0.752461		1935320	836320	1099000	1363173	2571988	1208815			
90		0.750597		1935320	836320	1099000	1366846	2578374	1211529			

E.3 Scenario 3 Output Results

Time	"special data 3 requirement rate (SNR3)"	"technical efficiency 3 (TE3)"	TIME STEP	"total base 3 cost (tBc3)"	"total base employe 3 cost (cBE3)"	"total base workstati on 3 cost (cBW3)"	"total employe 3 cost (cE3)"	"total optimize d 3 cost (tc3)"	"total workstati on cost (cW3)"	"worksta tion 3 adjustme nt time (Wat3)"	"worksta tion 3 maintena nce exponent (ewm3)"	"worksta tion 3 producti on exponent (ewp3)"
91		0.748762		1935320	836320	1099000	1370479	2584692	1214213			
92		0.746953		1935320	836320	1099000	1374081	2590952	1216871			
93		0.745167		1935320	836320	1099000	1377654	2597163	1219509			
94		0.743401		1935320	836320	1099000	1381204	2603332	1222128			
95		0.741654		1935320	836320	1099000	1384735	2609466	1224731			
96		0.739923		1935320	836320	1099000	1388249	2615570	1227321			
97		0.738207		1935320	836320	1099000	1391749	2621649	1229900			
98		0.736506		1935320	836320	1099000	1395237	2627706	1232469			
99		0.734817		1935320	836320	1099000	1398716	2633746	1235029			
100		0.73314		1935320	836320	1099000	1402187	2639770	1237583			
101		0.731474		1935320	836320	1099000	1405651	2645783	1240131			
102		0.729818		1935320	836320	1099000	1409110	2651784	1242674			
103		0.728172		1935320	836320	1099000	1412565	2657778	1245213			
104		0.726536		1935320	836320	1099000	1416016	2663764	1247748			
105		0.724908		1935320	836320	1099000	1419464	2669744	1250280			
106		0.72329		1935320	836320	1099000	1422910	2675720	1252810			
107		0.721679		1935320	836320	1099000	1426355	2681692	1255337			
108		0.720076		1935320	836320	1099000	1429799	2687661	1257863			
109		0.718481		1935320	836320	1099000	1433242	2693628	1260387			
110		0.716893		1935320	836320	1099000	1436684	2699594	1262910			
111		0.715313		1935320	836320	1099000	1440127	2705559	1265432			
112		0.713739		1935320	836320	1099000	1443570	2711523	1267953			
113		0.712173		1935320	836320	1099000	1447014	2717487	1270473			
114		0.710613		1935320	836320	1099000	1450458	2723451	1272993			
115		0.70906		1935320	836320	1099000	1453903	2729416	1275513			
116		0.707514		1935320	836320	1099000	1457349	2735381	1278032			
117		0.705974		1935320	836320	1099000	1460796	2741347	1280551			
118		0.704441		1935320	836320	1099000	1464244	2747314	1283070			
119		0.702914		1935320	836320	1099000	1467693	2753282	1285589			
120		0.701393		1935320	836320	1099000	1471144	2759251	1288108			

E.3 Scenario 3 Output Results

Time	"special data 3 requirement rate (SNR3)"	"technical efficiency 3 (TE3)"	TIME STEP	"total base 3 cost (tBc3)"	"total base employe 3 cost (cBE3)"	"total base workstati on 3 cost (cBW3)"	"total employe 3 cost (cE3)"	"total optimize d 3 cost (tc3)"	"total workstati on cost (cW3)"	"worksta tion 3 adjustme nt time (Wat3)"	"worksta tion 3 maintena nce exponent (ewm3)"	"worksta tion 3 producti on exponent (ewp3)"
121		0.699879		1935320	836320	1099000	1474596	2765222	1290626			
122		0.69837		1935320	836320	1099000	1478049	2771195	1293145			
123		0.696868		1935320	836320	1099000	1481504	2777169	1295664			
124		0.695372		1935320	836320	1099000	1484961	2783144	1298183			
125		0.693882		1935320	836320	1099000	1488419	2789122	1300703			
126		0.692397		1935320	836320	1099000	1491878	2795101	1303222			
127		0.690919		1935320	836320	1099000	1495340	2801082	1305742			
128		0.689446		1935320	836320	1099000	1498803	2807064	1308262			
129		0.75847		1935320	836320	1099000	1350919	2551611	1200692			
130		0.877868		1935320	836320	1099000	1151546	2204570	1053024			
131		1.007681		1935320	836320	1099000	990367.9	1920568	930200.2			
132		1.147147		1935320	836320	1099000	859389.8	1687073	827682.9			
133		1.294724		1935320	836320	1099000	752710.6	1494774	742063.4			
134		1.448474		1935320	836320	1099000	665606.6	1336110	670503.5			
135		1.606154		1935320	836320	1099000	594298	1204941	610642.5			
136		1.765356		1935320	836320	1099000	535759.1	1096278	560518.4			
137		1.923058		1935320	836320	1099000	487730.9	1006376	518645.3			
138		2.075208		1935320	836320	1099000	448611.4	932590.9	483979.5			
139		2.219285		1935320	836320	1099000	416729.7	872046.5	455316.8			
140		2.353456		1935320	836320	1099000	390707.4	822331	431623.6			
141		2.4765		1935320	836320	1099000	369434.4	781473.9	412039.6			
142		2.587774		1935320	836320	1099000	352018.2	747870.5	395852.3			
143		2.68715		1935320	836320	1099000	337740.3	720212.8	382472.5			
144		2.774917		1935320	836320	1099000	326020.8	697433.6	371412.8			
145		2.851672		1935320	836320	1099000	316390.9	678661.4	362270.5			
146		2.918228		1935320	836320	1099000	308470.4	663183.4	354712.9			
147		2.975513		1935320	836320	1099000	301950.4	650415.6	348465.2			
148		3.024507		1935320	836320	1099000	296579.5	639879.4	343299.9			
149		3.066184		1935320	836320	1099000	292152.4	631181.9	339029.5			
150		3.101473		1935320	836320	1099000	288501.4	624000.2	335498.8			

E.3 Scenario 3 Output Results

Time	"special data 3 requirement rate (SNR3)"	"technical efficiency 3 (TE3)"	TIME STEP	"total base 3 cost (tBc3)"	"total base employe 3 cost (cBE3)"	"total base workstati on 3 cost (cBW3)"	"total employe 3 cost (cE3)"	"total optimize d 3 cost (tc3)"	"total workstati on cost (cW3)"	"worksta tion 3 adjustme nt time (Wat3)"	"worksta tion 3 maintena nce exponent (ewm3)"	"worksta tion 3 producti on exponent (ewp3)"
151		3.131238		1935320	836320	1099000	285489.1	618068.6	332579.6			
152		3.15626		1935320	836320	1099000	283002.8	613168.7	330165.9			
153		3.177238		1935320	836320	1099000	280950	609120.2	328170.2			
154		3.194785		1935320	836320	1099000	279254.7	605774.8	326520			
155		3.209433		1935320	836320	1099000	277854.4	603009.9	325155.5			
156		3.221642		1935320	836320	1099000	276697.4	600724.6	324027.2			
157		3.231804		1935320	836320	1099000	275741.4	598835.8	323094.3			
158		3.240254		1935320	836320	1099000	274951.3	597274.2	322322.8			
159		3.247272		1935320	836320	1099000	274298.4	595983.3	321684.9			
160		3.253098		1935320	836320	1099000	273758.6	594916	321157.4			

E.3 Scenario 3 Output Results

Time	"workstation 3 special exponent (ews3)"	"Workstations 3 (W3)"
1	0.7	76.90544
2		104.8593
3		130.9415
4		154.2931
5		174.7486
6		192.4434
7		207.6313
8		220.601
9		231.6375
10		241.0052
11		248.9418
12		255.6564
13		261.3311
14		266.123
15		270.1666
16		273.5771
17		276.4523
18		278.8754
19		280.9169
20		282.6365
21		284.0847
22		285.3041
23		286.3307
24		287.195
25		287.9225
26		288.5349
27		289.0502
28		289.4839
29		289.8489
30		290.1561

E.3 Scenario 3 Output Results

<b>Time</b>	<b>"workstation 3 special exponent (ews3)"</b>	<b>"Workstations 3 (W3)"</b>
31		290.4146
32		290.632
33		290.8151
34		290.9691
35		291.0986
36		291.2077
37		291.2994
38		291.3766
39		291.4415
40		291.4962
41		291.5421
42		291.5808
43		291.6133
44		291.6407
45		291.6638
46		291.6831
47		291.6995
48		291.7132
49		291.7247
50		291.7344
51		291.7426
52		291.7495
53		291.7553
54		291.7602
55		291.7643
56		291.7677
57		291.7706
58		291.7731
59		291.7751
60		291.7769



E.3 Scenario 3 Output Results

<b>Time</b>	<b>"worksta tion 3 special exponent (ews3)"</b>	<b>"Worksta tions 3 (W3)"</b>
61		291.7783
62		297.4737
63		302.4375
64		306.7828
65		310.5979
66		313.9591
67		316.932
68		319.5732
69		321.9311
70		324.0472
71		325.9572
72		327.6912
73		329.2752
74		330.7314
75		332.0786
76		333.3329
77		334.508
78		335.6156
79		336.6658
80		337.6669
81		338.6262
82		339.55
83		340.4433
84		341.3108
85		342.1563
86		342.9829
87		343.7935
88		344.5904
89		345.3757
90		346.151

E.3 Scenario 3 Output Results

<b>Time</b>	<b>"worksta tion 3 special exponent (ews3)"</b>	<b>"Worksta tions 3 (W3)"</b>
91		346.9179
92		347.6776
93		348.4311
94		349.1793
95		349.9231
96		350.6631
97		351.3999
98		352.1339
99		352.8655
100		353.5952
101		354.3232
102		355.0497
103		355.7751
104		356.4994
105		357.2228
106		357.9456
107		358.6677
108		359.3893
109		360.1105
110		360.8313
111		361.5518
112		362.2722
113		362.9923
114		363.7123
115		364.4322
116		365.152
117		365.8717
118		366.5914
119		367.3111
120		368.0307

E.3 Scenario 3 Output Results

<b>Time</b>	<b>"worksta tion 3 special exponent (ews3)"</b>	<b>"Worksta tions 3 (W3)"</b>
121		368.7504
122		369.4701
123		370.1898
124		370.9095
125		371.6293
126		372.3492
127		373.0691
128		373.789
129		343.0549
130		300.8639
131		265.7715
132		236.4808
133		212.0181
134		191.5724
135		174.4693
136		160.1481
137		148.1844
138		138.2798
139		130.0905
140		123.321
141		117.7256
142		113.1007
143		109.2778
144		106.1179
145		103.5059
146		101.3466
147		99.56147
148		98.08569
149		96.86557
150		95.8568

E.3 Scenario 3 Output Results

<b>Time</b>	<b>"workstation 3 special exponent (ews3)"</b>	<b>"Workstations 3 (W3)"</b>
151		95.02274
152		94.33311
153		93.76291
154		93.29143
155		92.90157
156		92.57921
157		92.31265
158		92.09224
159		91.90998
160		91.75927