

Holdrate	0,80	ROP	80
Orderrate	300,00	Q	110
Purchase	90,00		
Sell	130,00		

Day	Start	Demand	Sales	End	Order	
1	100	85	85		15	110
2	125	107	107		18	110
3	128	109	109		19	110
4	129	93	93		36	110
5	146	93	93		53	110
6	163	80	80		83	0
7	83	110	83		-27	110
8	83	103	83		-20	110
9	90	90	90		0	110
10	110	108	108		2	110
11	112	110	110		2	110
12	112	112	112		0	110
13	110	97	97		13	110
14	123	87	87		36	110
15	146	87	87		59	110
16	169	94	94		75	110
17	185	103	103		82	0
18	82	100	82		-18	110
19	92	113	92		-21	110
20	89	100	89		-11	110
21	99	101	99		-2	110
22	108	102	102		6	110
23	116	95	95		21	110
24	131	113	113		18	110
25	128	94	94		34	110
26	144	100	100		44	110
27	154	93	93		61	110
28	171	100	100		71	110
29	181	113	113		68	110
30	178	99	99		79	110

Net	89723,2	66
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636,8	8400,0	277200,0	375960,0	
Holdcost	Ordercost	Purchase	Revenue	SHORT
12	300	9900	11050	0
14,4	300	9900	13910	0
15,2	300	9900	14170	0
28,8	300	9900	12090	0
42,4	300	9900	12090	0
66,4	0	0	10400	0
-21,6	300	9900	10790	27
-16	300	9900	10790	13
0	300	9900	11700	0
1,6	300	9900	14040	0
1,6	300	9900	14300	0
0	300	9900	14560	0
10,4	300	9900	12610	0
28,8	300	9900	11310	0
47,2	300	9900	11310	0
60	300	9900	12220	0
65,6	0	0	13390	0
-14,4	300	9900	10660	8
-16,8	300	9900	11960	24
-8,8	300	9900	11570	1
-1,6	300	9900	12870	-7
4,8	300	9900	13260	0
16,8	300	9900	12350	0
14,4	300	9900	14690	0
27,2	300	9900	12220	0
35,2	300	9900	13000	0
48,8	300	9900	12090	0
56,8	300	9900	13000	0
54,4	300	9900	14690	0
63,2	300	9900	12870	0

89723,2

YASAI Simulation Output

Workbook	Unit 8.xlsx	YASAI Version:	3
Sheet	Chapter 5	Use Same Seed?	Yes
Start Date	29.09.24	Random Number Seed:	64849,04688
Start Time	6:00:49 PM		
Run Time (h:mm:ss)	00:00:31		
Scenarios:	20		
Sample Size:	1000		

Scenario	Parameter	
	Q	ROP
1	100	80
2	100	100
3	100	120
4	100	140
5	110	80
6	110	100
7	110	120
8	110	140
9	120	80
10	120	100
11	120	120
12	120	140
13	130	80
14	130	100
15	130	120
16	130	140
17	140	80
18	140	100
19	140	120
20	140	140

Output Name	Scenario	Observations	Standard	
			Mean	Deviation
N2	1	1000	77459,796	44645,157
N2	2	1000	81988,426	43156,162
N2	3	1000	82082,916	43025,846
N2	4	1000	81650,286	42862,897
N2	5	1000	98775,904	6460,840
N2	6	1000	103600,954	3704,515
N2	7	1000	102152,928	3701,486
N2	8	1000	100000,282	3678,949
N2	9	1000	99608,166	4666,419

N2	10	1000	103755,076	3830,959
N2	11	1000	102074,804	3743,492
N2	12	1000	99803,360	3800,677
N2	13	1000	100090,170	4724,842
N2	14	1000	103856,138	3968,029
N2	15	1000	102033,700	3948,006
N2	16	1000	99740,552	3955,312
N2	17	1000	100225,562	4722,026
N2	18	1000	103610,910	4159,864
N2	19	1000	101914,822	4484,411
N2	20	1000	99819,516	4426,826
Net	1	1000	77459,796	44645,157
Net	2	1000	81988,426	43156,162
Net	3	1000	82082,916	43025,846
Net	4	1000	81650,286	42862,897
Net	5	1000	98775,904	6460,840
Net	6	1000	103600,954	3704,515
Net	7	1000	102152,928	3701,486
Net	8	1000	100000,282	3678,949
Net	9	1000	99608,166	4666,419
Net	10	1000	103755,076	3830,959
Net	11	1000	102074,804	3743,492
Net	12	1000	99803,360	3800,677
Net	13	1000	100090,170	4724,842
Net	14	1000	103856,138	3968,029
Net	15	1000	102033,700	3948,006
Net	16	1000	99740,552	3955,312
Net	17	1000	100225,562	4722,026
Net	18	1000	103610,910	4159,864
Net	19	1000	101914,822	4484,411
Net	20	1000	99819,516	4426,826
Short	1	1000	305,595	402,969
Short	2	1000	252,227	396,963
Short	3	1000	239,994	399,936
Short	4	1000	237,559	400,872
Short	5	1000	51,201	64,582
Short	6	1000	9,620	23,252
Short	7	1000	0,689	5,635
Short	8	1000	0,183	2,304
Short	9	1000	7,747	49,967
Short	10	1000	2,366	19,582
Short	11	1000	0,282	4,260
Short	12	1000	0,000	0,000
Short	13	1000	-35,836	50,923

Short	14	1000	-5,967	18,548
Short	15	1000	0,162	4,211
Short	16	1000	0,000	0,000
Short	17	1000	-69,457	57,163
Short	18	1000	-10,088	23,921
Short	19	1000	-0,133	1,299
Short	20	1000	0,000	0,000

	5th	10th	15th	20th	25th	30th
Minimum	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile
-225479,600	-13698,780	25708,000	43208,460	55674,240	68916,100	76393,840
-225479,600	-8453,300	35460,640	51228,680	67255,200	79887,800	87889,280
-225479,600	-8453,300	36426,880	51478,300	68430,400	81415,500	89540,720
-225479,600	-8453,300	36426,880	51478,300	68430,400	81217,700	89454,800
54790,400	87659,540	91014,360	92924,060	94172,160	95420,400	96473,560
80549,600	97777,560	99000,960	99682,400	100316,320	101001,800	101536,280
91972,400	96537,040	97360,640	97950,480	98553,840	99258,800	99939,120
89480,800	94153,800	94968,360	95893,540	96734,400	97340,300	97941,880
84684,400	92063,700	93667,280	94673,000	95634,560	96351,500	97298,120

93839,600	97163,320	98850,080	99827,180	100456,880	100926,600	101485,920
92283,200	95843,360	97307,720	97974,500	98656,080	99215,600	99952,760
89400,400	94152,360	94851,960	95381,520	96017,600	96834,200	97505,160
79477,200	92214,200	93965,360	95168,340	96140,800	96812,200	97778,000
93548,000	97006,380	98804,280	99713,760	100204,400	101033,700	101629,240
91292,400	96192,080	96776,280	97568,080	98281,840	98892,000	99545,920
88648,800	93649,020	94396,680	95173,740	95853,360	96429,200	97204,040
86281,600	92529,320	94173,720	95164,760	96007,760	96907,200	97633,080
93125,200	97017,860	98012,560	98860,180	99581,760	100302,500	100871,960
92565,200	94503,380	95836,400	96701,020	97684,880	98551,900	99328,960
90481,600	92405,820	93589,880	94838,640	95976,320	96539,100	97266,640
-225479,600	-13698,780	25708,000	43208,460	55674,240	68916,100	76393,840
-225479,600	-8453,300	35460,640	51228,680	67255,200	79887,800	87889,280
-225479,600	-8453,300	36426,880	51478,300	68430,400	81415,500	89540,720
-225479,600	-8453,300	36426,880	51478,300	68430,400	81217,700	89454,800
54790,400	87659,540	91014,360	92924,060	94172,160	95420,400	96473,560
80549,600	97777,560	99000,960	99682,400	100316,320	101001,800	101536,280
91972,400	96537,040	97360,640	97950,480	98553,840	99258,800	99939,120
89480,800	94153,800	94968,360	95893,540	96734,400	97340,300	97941,880
84684,400	92063,700	93667,280	94673,000	95634,560	96351,500	97298,120
93839,600	97163,320	98850,080	99827,180	100456,880	100926,600	101485,920
92283,200	95843,360	97307,720	97974,500	98656,080	99215,600	99952,760
89400,400	94152,360	94851,960	95381,520	96017,600	96834,200	97505,160
79477,200	92214,200	93965,360	95168,340	96140,800	96812,200	97778,000
93548,000	97006,380	98804,280	99713,760	100204,400	101033,700	101629,240
91292,400	96192,080	96776,280	97568,080	98281,840	98892,000	99545,920
88648,800	93649,020	94396,680	95173,740	95853,360	96429,200	97204,040
86281,600	92529,320	94173,720	95164,760	96007,760	96907,200	97633,080
93125,200	97017,860	98012,560	98860,180	99581,760	100302,500	100871,960
92565,200	94503,380	95836,400	96701,020	97684,880	98551,900	99328,960
90481,600	92405,820	93589,880	94838,640	95976,320	96539,100	97266,640
-13,000	0,000	0,000	0,000	9,000	23,000	38,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-49,000	-16,000	-9,000	-3,150	0,000	5,000	10,000
-9,000	-1,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-90,000	-52,050	-42,000	-35,000	-30,000	-25,000	-21,000
-26,000	-13,000	-11,000	-8,000	-5,000	-3,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-150,000	-101,000	-91,000	-83,000	-77,000	-69,000	-64,000

-63,000	-31,050	-24,000	-20,150	-18,000	-15,000	-12,000
-5,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-253,000	-154,000	-138,000	-126,000	-116,000	-107,250	-102,000
-99,000	-49,000	-35,000	-30,000	-27,000	-24,000	-21,000
-21,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000

35th	40th	45th	50th	55th	60th	65th
Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile
83819,380	89123,920	92762,700	96526,000	99231,840	100712,480	101935,220
93315,820	97232,960	98793,760	99989,800	100820,100	101681,280	102605,880
94202,760	96804,720	98366,960	99537,600	100460,040	101214,880	102060,700
93214,600	95113,920	97187,540	98461,800	99622,100	100467,840	101324,640
97295,780	98080,880	98998,180	99815,600	100494,040	101161,760	101969,480
101982,220	102622,960	103254,920	103746,000	104291,700	104741,200	105316,820
100498,460	101141,520	101742,080	102211,400	102695,600	103301,760	103856,760
98312,080	98894,560	99412,620	99990,000	100485,760	100961,840	101601,220
97798,140	98311,520	98927,140	99696,600	100312,300	100883,680	101491,860

101987,700	102604,400	103219,840	103738,600	104367,480	104960,320	105472,960
100544,400	101006,960	101593,120	102128,400	102667,820	103187,440	103754,400
98179,340	98708,800	99445,880	99976,400	100478,900	101054,640	101602,060
98380,340	98920,960	99520,340	100269,800	100775,200	101328,080	102002,260
102202,040	102746,240	103243,380	103814,000	104409,400	105036,000	105685,340
100253,460	101081,840	101580,660	102137,000	102644,760	103228,080	103842,060
97970,460	98566,560	99179,880	99797,800	100563,120	101057,040	101637,620
98264,480	99049,680	99496,240	100114,200	100742,800	101468,560	102077,380
101700,500	102285,760	102964,000	103533,400	104253,260	104963,520	105522,760
99967,760	100543,760	101230,560	101872,600	102553,160	103219,600	103837,740
97955,500	98488,560	99178,760	99788,000	100407,380	101135,360	101751,080
83819,380	89123,920	92762,700	96526,000	99231,840	100712,480	101935,220
93315,820	97232,960	98793,760	99989,800	100820,100	101681,280	102605,880
94202,760	96804,720	98366,960	99537,600	100460,040	101214,880	102060,700
93214,600	95113,920	97187,540	98461,800	99622,100	100467,840	101324,640
97295,780	98080,880	98998,180	99815,600	100494,040	101161,760	101969,480
101982,220	102622,960	103254,920	103746,000	104291,700	104741,200	105316,820
100498,460	101141,520	101742,080	102211,400	102695,600	103301,760	103856,760
98312,080	98894,560	99412,620	99990,000	100485,760	100961,840	101601,220
97798,140	98311,520	98927,140	99696,600	100312,300	100883,680	101491,860
101987,700	102604,400	103219,840	103738,600	104367,480	104960,320	105472,960
100544,400	101006,960	101593,120	102128,400	102667,820	103187,440	103754,400
98179,340	98708,800	99445,880	99976,400	100478,900	101054,640	101602,060
98380,340	98920,960	99520,340	100269,800	100775,200	101328,080	102002,260
102202,040	102746,240	103243,380	103814,000	104409,400	105036,000	105685,340
100253,460	101081,840	101580,660	102137,000	102644,760	103228,080	103842,060
97970,460	98566,560	99179,880	99797,800	100563,120	101057,040	101637,620
98264,480	99049,680	99496,240	100114,200	100742,800	101468,560	102077,380
101700,500	102285,760	102964,000	103533,400	104253,260	104963,520	105522,760
99967,760	100543,760	101230,560	101872,600	102553,160	103219,600	103837,740
97955,500	98488,560	99178,760	99788,000	100407,380	101135,360	101751,080
65,000	105,600	135,550	165,000	196,000	237,400	282,350
15,650	28,000	43,000	74,000	123,000	161,000	202,000
0,000	14,000	25,000	41,000	73,450	131,000	179,000
0,000	10,600	21,000	33,500	63,000	117,800	175,350
15,000	19,000	23,000	29,000	35,000	44,000	55,000
0,000	0,000	0,000	0,000	0,000	0,000	4,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-17,000	-14,000	-9,000	-5,000	0,000	4,000	9,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-60,000	-55,000	-49,000	-44,000	-39,000	-34,000	-27,000

-9,000	-5,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-94,350	-86,000	-80,000	-73,000	-67,000	-58,000	-53,000
-17,000	-10,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000

70th	75th	80th	85th	90th	95th	
Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Maximum
103124,120	104187,400	104907,120	105827,260	106768,120	108301,900	110509,600
103654,680	104381,500	105017,200	105837,320	106687,000	108274,960	110509,600
103000,320	103967,300	104812,160	105775,140	106687,000	108274,960	110509,600
102373,600	103617,100	104627,360	105700,980	106687,000	108274,960	110509,600
102544,760	103141,200	103791,040	104510,520	105514,200	107191,020	113576,000
105826,120	106301,400	106968,160	107539,540	108144,680	108964,520	113151,600
104309,240	104918,500	105444,720	105979,040	106808,160	108353,000	110951,200
102159,040	102607,300	103260,400	104002,540	105098,320	106129,480	110775,200
102172,560	102773,900	103610,400	104365,180	105370,480	107228,840	113566,000

105980,120	106549,500	107187,760	107911,820	108696,640	109834,480	114666,400
104484,760	105076,100	105690,000	106269,260	106941,480	107467,740	112470,000
102183,840	102722,700	103238,560	103993,720	104562,360	105657,860	109383,600
102569,000	103307,400	104193,680	105213,740	106226,040	107565,880	113063,200
106257,960	106931,300	107690,800	108311,940	109088,240	110079,140	115014,400
104556,880	105198,700	105857,200	106456,500	107190,160	107750,820	113030,000
102150,760	102711,700	103358,080	104042,840	104662,720	106057,640	109855,600
102726,440	103474,600	104417,520	105148,720	106527,920	108229,440	113874,800
106350,920	106962,700	107490,960	108040,860	108980,640	110100,280	114562,000
104534,640	105326,300	105979,840	106645,300	107778,920	109533,420	111862,800
102292,400	103018,400	103881,040	104961,320	106073,960	107145,500	108775,200
103124,120	104187,400	104907,120	105827,260	106768,120	108301,900	110509,600
103654,680	104381,500	105017,200	105837,320	106687,000	108274,960	110509,600
103000,320	103967,300	104812,160	105775,140	106687,000	108274,960	110509,600
102373,600	103617,100	104627,360	105700,980	106687,000	108274,960	110509,600
102544,760	103141,200	103791,040	104510,520	105514,200	107191,020	113576,000
105826,120	106301,400	106968,160	107539,540	108144,680	108964,520	113151,600
104309,240	104918,500	105444,720	105979,040	106808,160	108353,000	110951,200
102159,040	102607,300	103260,400	104002,540	105098,320	106129,480	110775,200
102172,560	102773,900	103610,400	104365,180	105370,480	107228,840	113566,000
105980,120	106549,500	107187,760	107911,820	108696,640	109834,480	114666,400
104484,760	105076,100	105690,000	106269,260	106941,480	107467,740	112470,000
102183,840	102722,700	103238,560	103993,720	104562,360	105657,860	109383,600
102569,000	103307,400	104193,680	105213,740	106226,040	107565,880	113063,200
106257,960	106931,300	107690,800	108311,940	109088,240	110079,140	115014,400
104556,880	105198,700	105857,200	106456,500	107190,160	107750,820	113030,000
102150,760	102711,700	103358,080	104042,840	104662,720	106057,640	109855,600
102726,440	103474,600	104417,520	105148,720	106527,920	108229,440	113874,800
106350,920	106962,700	107490,960	108040,860	108980,640	110100,280	114562,000
104534,640	105326,300	105979,840	106645,300	107778,920	109533,420	111862,800
102292,400	103018,400	103881,040	104961,320	106073,960	107145,500	108775,200
347,600	427,500	526,800	667,000	793,200	1112,050	2848,000
259,600	341,500	432,200	591,900	727,100	1082,150	2848,000
238,300	325,500	430,000	585,900	724,300	1082,150	2848,000
233,300	325,500	430,000	585,900	724,300	1082,150	2848,000
67,000	83,000	101,200	118,150	146,100	183,000	412,000
6,300	10,250	15,000	20,000	28,000	43,000	193,000
0,000	0,000	0,000	0,000	0,000	0,000	129,000
0,000	0,000	0,000	0,000	0,000	0,000	48,000
14,000	25,000	41,000	68,150	89,100	115,000	264,000
0,000	0,000	1,000	5,000	11,000	21,050	140,000
0,000	0,000	0,000	0,000	0,000	0,000	126,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-21,000	-15,000	-4,000	10,000	44,000	67,050	190,000

0,000	0,000	0,000	0,000	0,000	3,050	140,000
0,000	0,000	0,000	0,000	0,000	0,000	129,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
-47,000	-38,000	-30,000	-17,000	0,000	46,000	133,000
0,000	0,000	0,000	0,000	0,000	0,000	122,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000