

LAMPIRAN

Perhitungan Peramalan Menggunakan POM for Windows 3

1) Moving Average

A. Forecasting Results

Measure	Value
Error Measures	
Bias (Mean Error)	-12032
MAD (Mean Absolute Deviation)	15040,25
MSE (Mean Squared Error)	281617200
Standard Error (denom=n-2=2)	23732,56
MAPE (Mean Absolute Percent Error)	,2
Forecast	
next period	78197,5

B. Errors as a function of n

n	Bias	MAD	MSE	Standard error	MAPE
1	-7429	12556,6	266210000	21063,79	,16
2	-12032	15040,25	281617200	23732,56	,2
3	-12157,33	12157,33	231055100	26328,03	,17
4	-15920,5	15920,5	412190800		,24
5	-30244,4	30244,4	914723600		,47

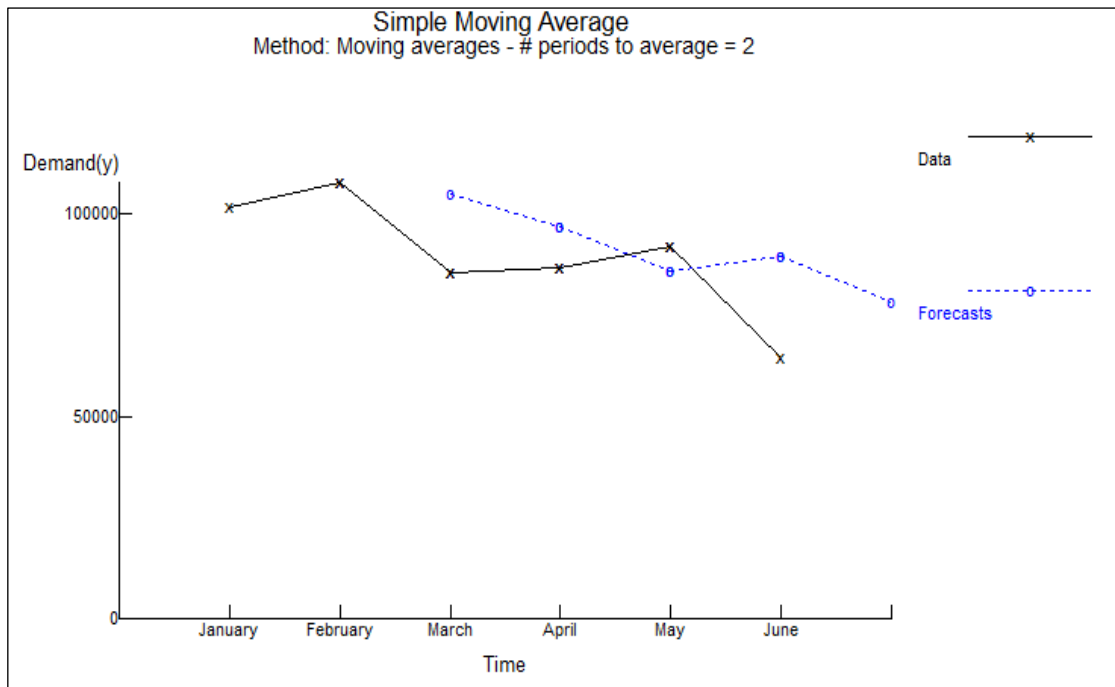
C. Control (Tracking Signal)

	Demand(y)	Forecast	Error	RSFE	RSFE	CumAbs	Cum MAD	Track Signal
January	101549							
February	107753							
March	85376	104651	-19275	-19275	19275	19275	19275	-1
April	86573	96564,5	-9991,5	-29266,5	9991,5	29266,5	14633,25	-2
May	91991	85974,5	6016,5	-23250	6016,5	35283	11761	-1,98
June	64404	89282	-24878	-48128	24878	60161	15040,25	-3,2

D. Details and Error – Analysis

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	101549					
February	107753					
March	85376	104651	-19275	19275	371525600	,23
April	86573	96564,5	-9991,5	9991,5	99830070	,12
May	91991	85974,5	6016,5	6016,5	36198270	,07
June	64404	89282	-24878	24878	618914900	,39
TOTALS	537646		-48128	60161	1126469000	,79
AVERAGE	89607,66		-12032	15040,25	281617200	,2
Next period forecast		78197,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	23732,56	

E. Grafik



2) *Weighted Moving Average*

A. Forecasting Results

Measure	Value
Error Measures	
Bias (Mean Error)	-11633,75
MAD (Mean Absolute Deviation)	14542,25
MSE (Mean Squared Error)	287541400
Standard Error (denom=n-2=2)	23980,88
MAPE (Mean Absolute Percent Error)	,19
Forecast	
next period	73599,66

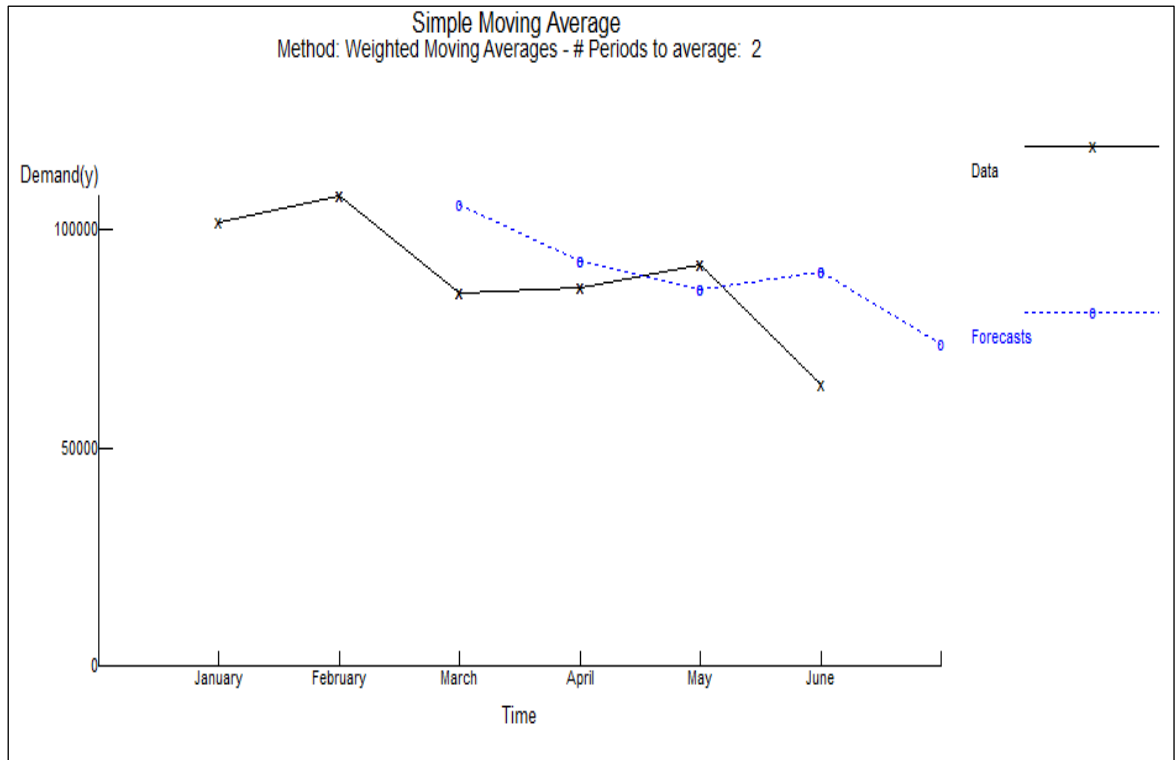
B. Control (Tracking Signal)

	Demand(y)	Forecast	Error	RSFE	RSFE	Cum Abs	Cum MAD	Track Signal
January	101549							
February	107753							
March	85376	105685	-20309	-20309	20309	20309	20309	-1
April	86573	92835	-6262	-26571	6262	26571	13285,5	-2
May	91991	86174	5817	-20754	5817	32388	10796	-1,92
June	64404	90185	-25781	-46535	25781	58169	14542,25	-3,2

C. Details and Error – Analysis

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	101549					
February	107753					
March	85376	105685	-20309	20309	412455500	,24
April	86573	92835	-6262	6262	39212640	,07
May	91991	86174	5817	5817	33837490	,06
June	64404	90185	-25781	25781	664660000	,4
TOTALS	537646		-46535	58169	1150166000	,77
AVERAGE	89607,66		-11633,75	14542,25	287541400	,19
Next period forecast		73599,66	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	23980,88	

D. Grafik



3) Exponential Smoothing

A. Forecasting Results

Measure	Value
Error Measures	
Bias (Mean Error)	-12023,09
MAD (Mean Absolute Deviation)	14504,69
MSE (Mean Squared Error)	302548300
Standard Error (denom=n-2=3)	22455,45
MAPE (Mean Absolute Percent Error)	,19
Forecast	
next period	89525,91

B. Details and Error – Analysis

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	101549					
February	107753	101549	6204	6204	38489620	,06
March	85376	102789,8	-17413,8	17413,8	303240300	,2
April	86573	99307,04	-12734,04	12734,04	162155700	,15
May	91991	96760,23	-4769,23	4769,23	22745600	,05
June	64404	95806,39	-31402,39	31402,39	986110100	,49
TOTALS	537646		-60115,46	72523,46	1512741000	,95
AVERAGE	89607,66		-12023,09	14504,69	302548300	,19
Next period forecast		89525,91	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	22455,45	

C. Control (Tracking Signal)

	Demand(y)	Forecast	Error	RSFE	RSFE	Cum Abs	Cum MAD	Track Signal
January	101549							
February	107753	101549	6204	6204	6204	6204	6204	1
March	85376	102789,8	-17413,8	-11209,8	17413,8	23617,8	11808,9	-,95
April	86573	99307,04	-12734,04	-23943,84	12734,04	36351,84	12117,28	-1,98
May	91991	96760,23	-4769,23	-28713,07	4769,23	41121,07	10280,27	-2,79
June	64404	95806,39	-31402,39	-60115,46	31402,39	72523,46	14504,69	-4,14

D. Errors as a function of alpha

Alpha	Bias	MAD	MSE	Standard error	MAPE
,00	-14329,6	16811,2	399088500	25790,45	,22
,01	-14203,7	16685,3	392891600	25589,44	,22
,02	-14078,86	16560,46	386851200	25391,96	,22
,03	-13955,09	16436,69	380965500	25198,07	,22
,04	-13832,41	16314	375232400	25007,74	,21
,05	-13710,82	16192,42	369649900	24821,02	,21
,06	-13590,32	16071,92	364215500	24637,89	,21
,07	-13470,93	15952,53	358927000	24458,37	,21
,08	-13352,65	15834,25	353782800	24282,46	,21
,09	-13235,5	15717,1	348780700	24110,19	,21
,10	-13119,49	15601,09	343918800	23941,55	,2
,11	-13004,61	15486,21	339194400	23776,54	,2
,12	-12890,88	15372,48	334606100	23615,18	,2
,13	-12778,3	15259,9	330151700	23457,47	,2
,14	-12666,88	15148,48	325828900	23303,39	,2
,15	-12556,64	15038,24	321636100	23152,97	,2
,16	-12447,56	14929,16	317570900	23006,19	,2
,17	-12339,66	14821,26	313631400	22863,05	,19
,18	-12232,95	14714,55	309815900	22723,55	,19
,19	-12127,42	14609,02	306122000	22587,68	,19
,20	-12023,09	14504,69	302548300	22455,45	,19
,21	-11919,96	14401,56	299092300	22326,83	,19
,22	-11818,03	14299,63	295752400	22201,82	,19
,23	-11717,31	14198,91	292526800	22080,41	,19

,24	-11617,8	14099,4	289413400	21962,6	,18
,25	-11519,5	14001,1	286410400	21848,36	,18
,26	-11422,42	13904,02	283516100	21737,68	,18
,27	-11326,56	13808,16	280728400	21630,55	,18
,28	-11231,92	13713,52	278045700	21526,95	,18
,29	-11138,51	13620,11	275466300	21426,87	,18
,30	-11046,32	13527,92	272988400	21330,28	,18
,31	-10955,36	13436,96	270610000	21237,15	,18
,32	-10865,63	13347,23	268329800	21147,49	,17
,33	-10777,13	13258,73	266145800	21061,25	,17
,34	-10689,86	13171,46	264056400	20978,42	,17
,35	-10603,82	13085,42	262059900	20898,96	,17
,36	-10519,02	13000,62	260154900	20822,86	,17
,37	-10435,44	12917,04	258339600	20750,08	,17
,38	-10353,1	12834,7	256612300	20680,6	,17
,39	-10271,99	12753,59	254971800	20614,39	,17
,40	-10192,1	12673,7	253416200	20551,41	,17
,41	-10113,44	12595,04	251944100	20491,63	,17
,42	-10036	12517,61	250554000	20435,02	,16
,43	-9959,8	12441,4	249244300	20381,54	,16
,44	-9884,81	12430,58	248013800	20331,17	,16
,45	-9811,04	12428,44	246860700	20283,85	,16
,46	-9738,49	12426,55	245783800	20239,56	,16
,47	-9667,15	12424,89	244781800	20198,26	,16

,48	-9597,03	12423,44	243853200	20159,91	,16
,49	-9528,1	12422,17	242996400	20124,46	,16
,50	-9460,38	12421,08	242210200	20091,88	,16
,51	-9393,85	12420,13	241493300	20062,13	,16
,52	-9328,52	12419,32	240844300	20035,15	,16
,53	-9264,37	12418,62	240262000	20010,92	,16
,54	-9201,41	12418,01	239745200	19989,38	,16
,55	-9139,62	12417,48	239292300	19970,49	,16
,56	-9079	12417	238902400	19954,21	,16
,57	-9019,56	12416,54	238573800	19940,49	,16
,58	-8961,26	12416,09	238305700	19929,28	,16
,59	-8904,12	12415,63	238096600	19920,53	,16
,60	-8848,12	12415,14	237945400	19914,21	,16
,61	-8793,26	12414,58	237851000	19910,26	,16
,62	-8739,53	12413,95	237811900	19908,62	,16
,63	-8686,92	12413,21	237827300	19909,26	,16
,64	-8635,43	12412,35	237895600	19912,13	,16
,65	-8585,04	12411,34	238016200	19917,17	,16
,66	-8535,74	12410,16	238187500	19924,33	,16
,67	-8487,54	12408,78	238408400	19933,57	,16
,68	-8440,4	12407,17	238677800	19944,83	,16
,69	-8394,34	12405,32	238994600	19958,07	,16
,70	-8349,33	12403,2	239357700	19973,22	,16
,71	-8305,37	12400,79	239766000	19990,25	,16

72	-8262,45	12398,05	240218300	20009,09	,16
73	-8220,56	12394,96	240713400	20029,7	,16
74	-8179,68	12391,5	241250400	20052,03	,16
75	-8139,8	12387,65	241828000	20076,02	,16
76	-8100,91	12383,36	242445100	20101,62	,16
77	-8063	12378,62	243100800	20128,78	,16
78	-8026,06	12373,4	243793700	20157,45	,16
79	-7990,07	12367,67	244522800	20187,57	,16
80	-7955,02	12361,4	245287100	20219,1	,16
81	-7920,9	12354,57	246085300	20251,97	,16
82	-7887,7	12347,15	246916500	20286,14	,16
83	-7855,39	12339,1	247779400	20321,56	,16
84	-7823,97	12330,4	248672900	20358,16	,16
85	-7793,42	12321,02	249596000	20395,92	,16
86	-7763,73	12310,94	250547500	20434,75	,16
87	-7734,88	12300,11	251526200	20474,63	,16
88	-7706,86	12288,51	252531000	20515,48	,16
89	-7679,64	12276,11	253560800	20557,27	,16
90	-7653,22	12262,88	254614600	20599,94	,16
91	-7627,58	12248,78	255691000	20643,44	,16
92	-7602,71	12233,79	256789000	20687,72	,16
93	-7578,57	12217,88	257907400	20732,72	,16
94	-7555,16	12201	259045000	20778,39	,16
95	-7532,47	12220,6	260200700	20824,69	,16

,96	-7510,46	12288,99	261373400	20871,57	,16
,97	-7489,13	12356,81	262561800	20918,96	,16
,98	-7468,46	12424,04	263764800	20966,83	,16
,99	-7448,42	12490,65	264981200	21015,12	,16
1,00	-7429	12556,6	266209900	21063,79	,16

E. Grafik

