



Performance Excellence Simulations with Endless Possibilities

DATA ANALYSES

After each round the participants are able to download a datafile. This has all the datapoints i.e.

Parcel movements

Parcellabel entry

Driver movement

Data Entry

Profit & Loss

Generated Parcel

WHAT COULD BE NEXT STEPS?

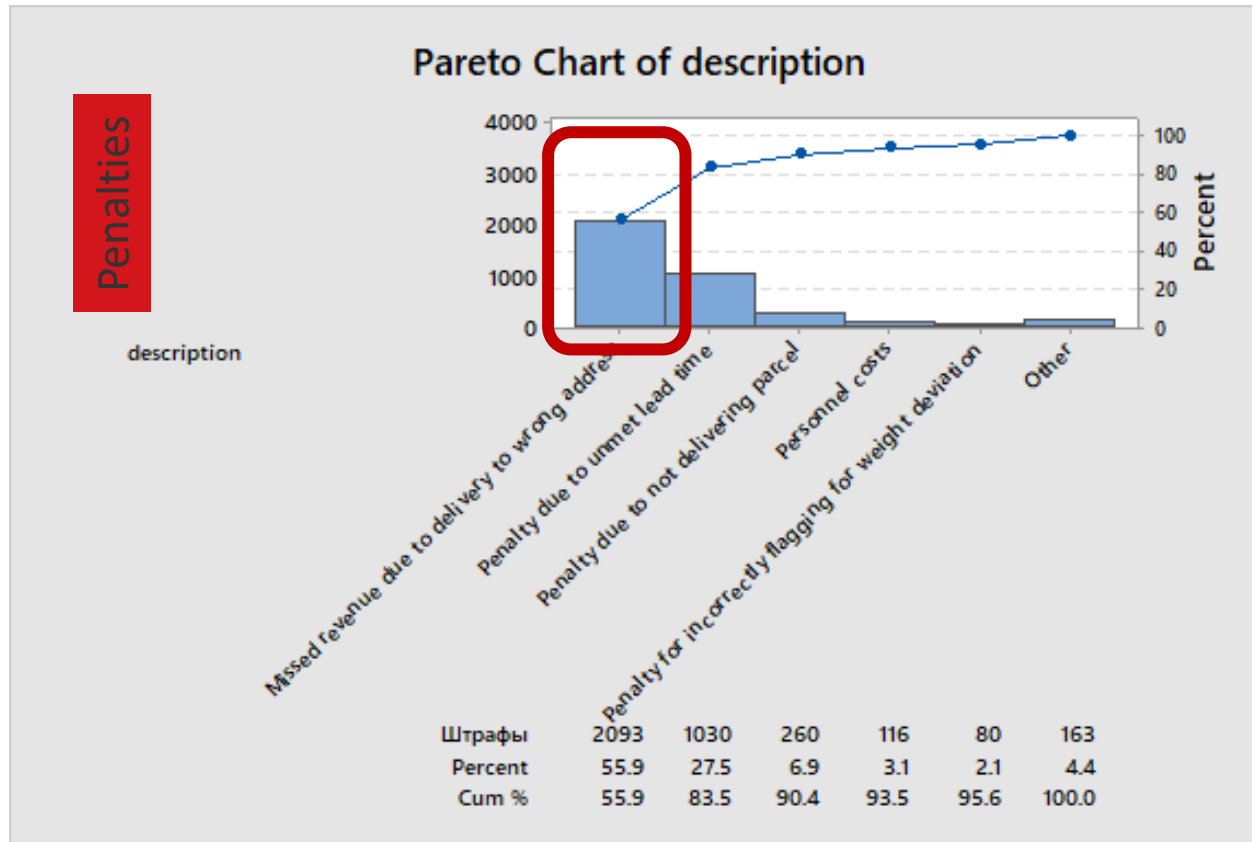
- DATA ANALYSES

End of round

Export

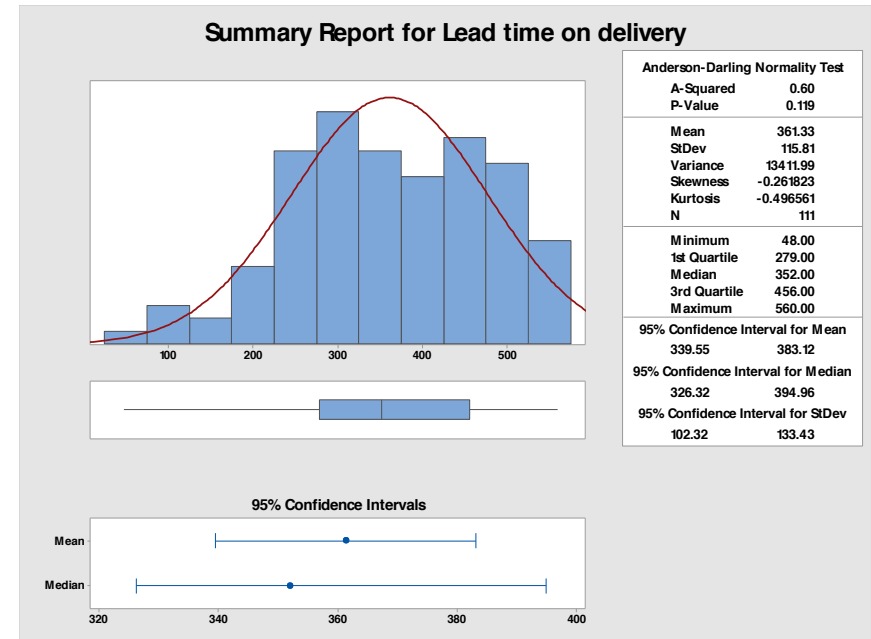
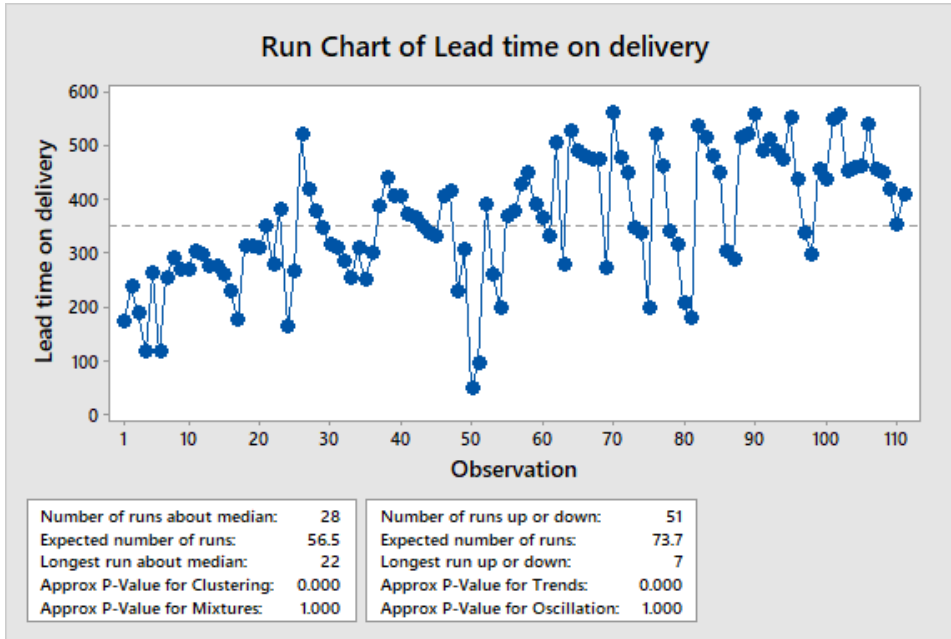
Gametime	Insert ord	ID	Previous l	Previous s	Previous p	New locat	New secti	New posit	Delivery A	Step of in	Correctly	Player Na	Duration	Duration c	Lead time
1	1	YK0001				Sender		East	North	1					
46	1	YK0001	Sender		East	Truck	truckSecti	Driver	North	1	Yes	Избасов К	45	Idle time i	
87	1	YK0001	Truck	truckSecti	Driver	Inbox		Incoming(	North	2	Yes	Избасов К	41	Time in tr	
374	1	YK0001	Inbox		Incoming(	WorkingA		Incoming(	North	2	NoMove	Мысаев Ж	287	Inbox idle	
392	1	YK0001	WorkingA		Incoming(	Outbox		Incoming(	North	2	NoMove	Мысаев Ж	18	Time in w	
392	1	YK0001	Outbox		Incoming(	Inbox		WeighSta	North	3		Мысаев Ж			
1	2	VF0002				Sender		South	West	1					484
35	2	VF0002	Sender		South	Truck	truckSecti	Driver	West	1	Yes	Стягов Де	34	Idle time i	484
47	2	VF0002	Truck	truckSecti	Driver	Inbox		Incoming(	West	2	Yes	Стягов Де	12	Time in tr	484
48	2	VF0002	Inbox		Incoming(	WorkingA		Incoming(	West	2	NoMove	Мысаев Ж	1	Inbox idle	484
84	2	VF0002	WorkingA		Incoming(	Outbox		Incoming(	West	2	NoMove	Мысаев Ж	36	Time in w	484
84	2	VF0002	Outbox		Incoming(	Inbox		WeighSta	West	3		Мысаев Ж			484
86	2	VF0002	Inbox		WeighSta	WorkingA		WeighSta	West	3	NoMove	Тагаев Ну	2	Inbox idle	484
129	2	VF0002	WorkingA		WeighSta	Outbox		WeighSta	West	3	NoMove	Тагаев Ну	43	Time in w	484
129	2	VF0002	Outbox		WeighSta	Inbox		Pricing	West	4		Тагаев Ну			484
131	2	VF0002	Inbox		Pricing	WorkingA		Pricing	West	4	NoMove	Ербол Ба	2	Inbox idle	484
255	2	VF0002	WorkingA		Pricing	Outbox		Pricing	West	4	NoMove	Ербол Ба	124	Time in w	484
255	2	VF0002	Outbox		Pricing	Inbox		Directions	West	5		Ербол Ба			484
278	2	VF0002	Inbox		Directions	WorkingA		Directions	West	5	NoMove	Берик Ка	23	Inbox idle	484

PARETO ON PENALTIES



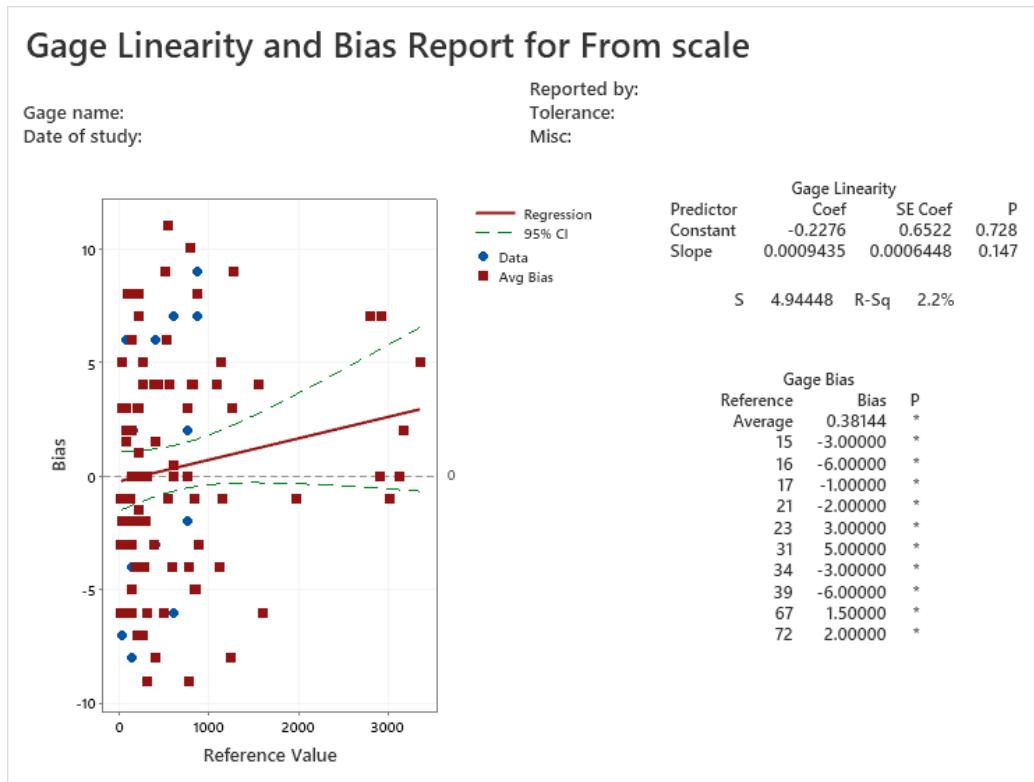
KEY PROBLEM – **WRONG ADDRESS DELIVERY!**, 56%

GRAPHICAL ANALYSIS ON LEAD TIME



THERE ARE UPWARD TRENDS IN LEAD TIME FROM GRAPHICAL SUMMARY – BEST RESULT IS 48 SECONDS, I.E. IT IS POSSIBLE TO DELIVER ON TIME

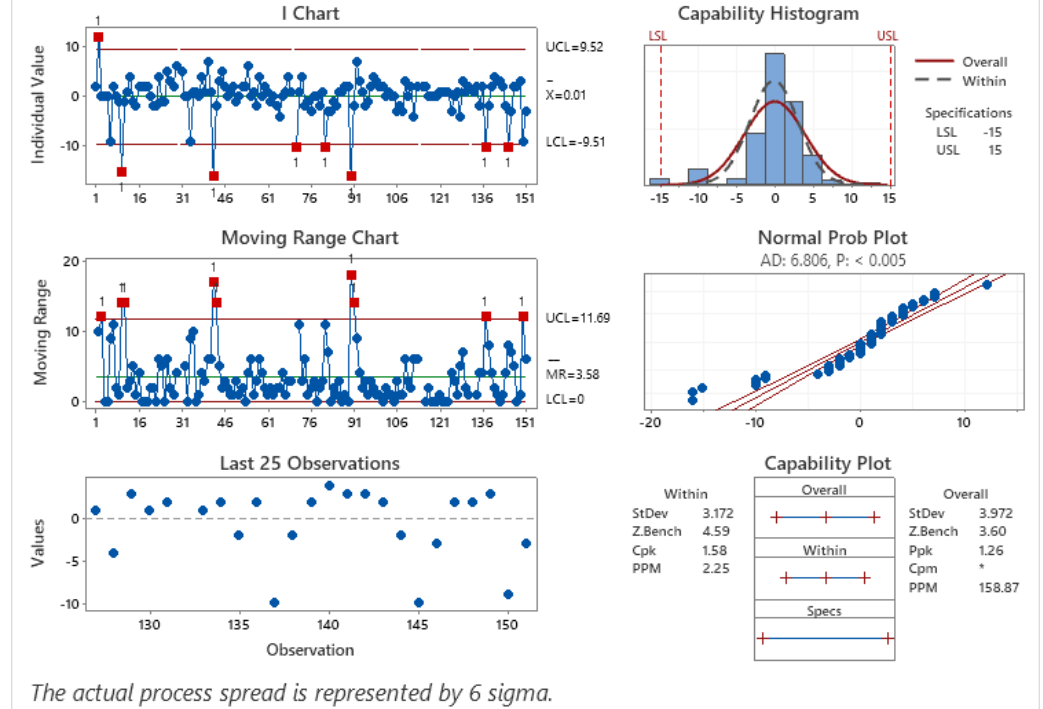
GAGE ACCURACY ON SCALE



THERE IS NO LINEARITY OR BIAS ISSUE, SCALE GIVES ERRORS IN THE RANGE OF +/-10 GRAMS.

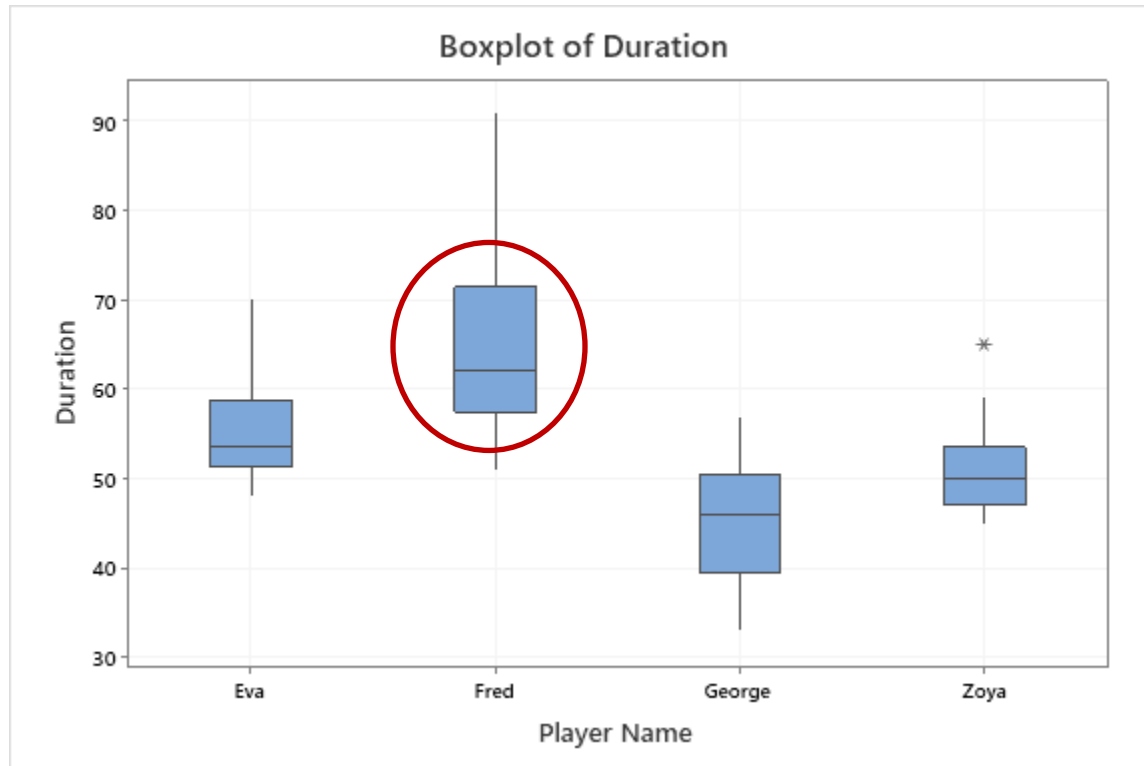
CAPABILITY ON TIME IN

Process Capability Sixpack Report for Correctness of entered time



THERE ARE SOME INSTABILITIES. PROCESS IS QUITE CAPABLE – ZSCORE OF 3.6

COMPARING CYCLE TIMES



Fred is the slowest!

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Player Name	3	3224	1074.63	19.26	0.000
Error	61	3404	55.80		
Total	64	6628			

Model Summary

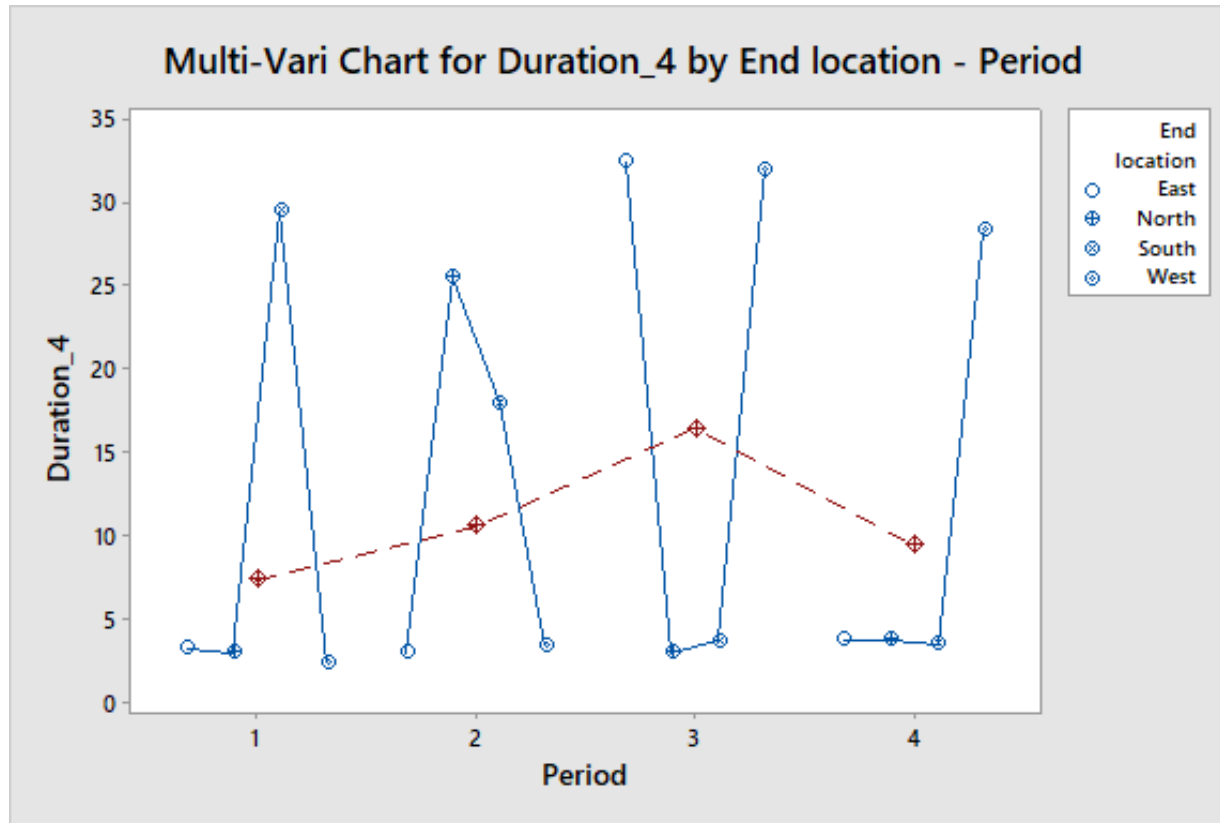
S	R-sq	R-sq(adj)	R-sq(pred)
7.46978	48.64%	46.12%	41.26%

Means

Player Name	N	Mean	StDev	95% CI
Eva	16	55.19	5.88	(51.45, 58.92)
Fred	14	64.64	11.37	(60.65, 68.63)
George	18	44.94	6.65	(41.42, 48.47)
Zoya	17	50.76	5.32	(47.14, 54.39)

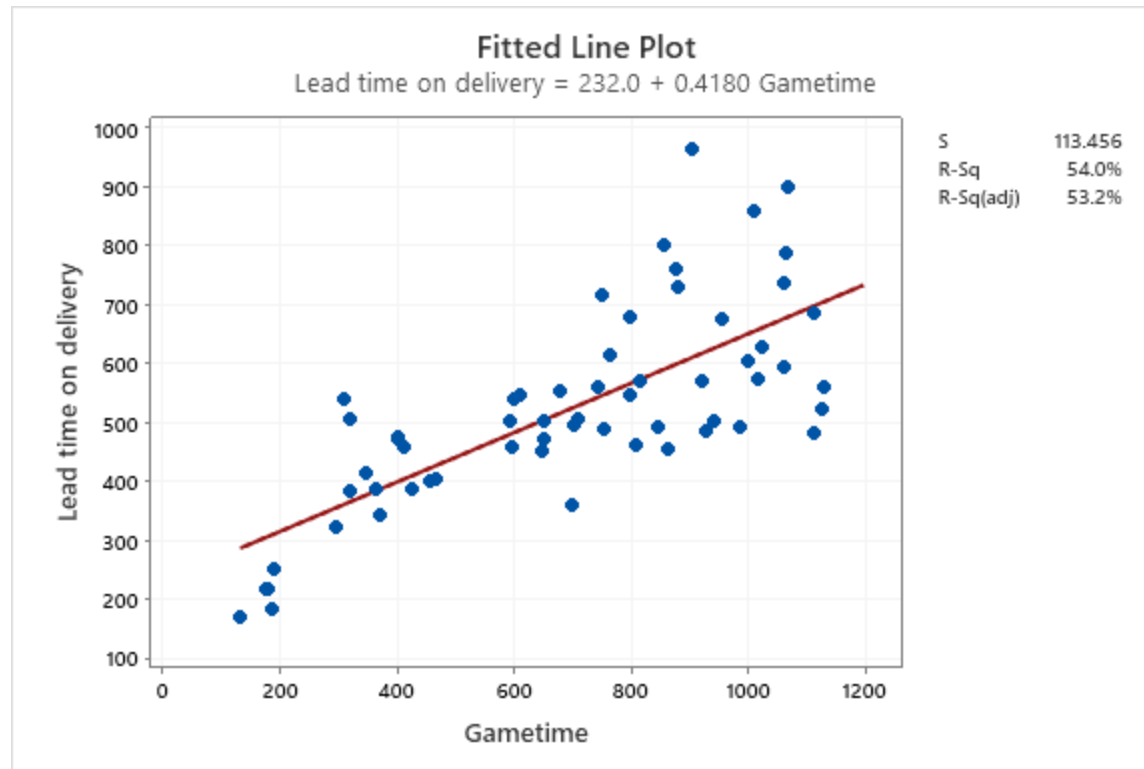
Pooled StDev = 7.46978

MULTI-VARI ON TRAFFIC



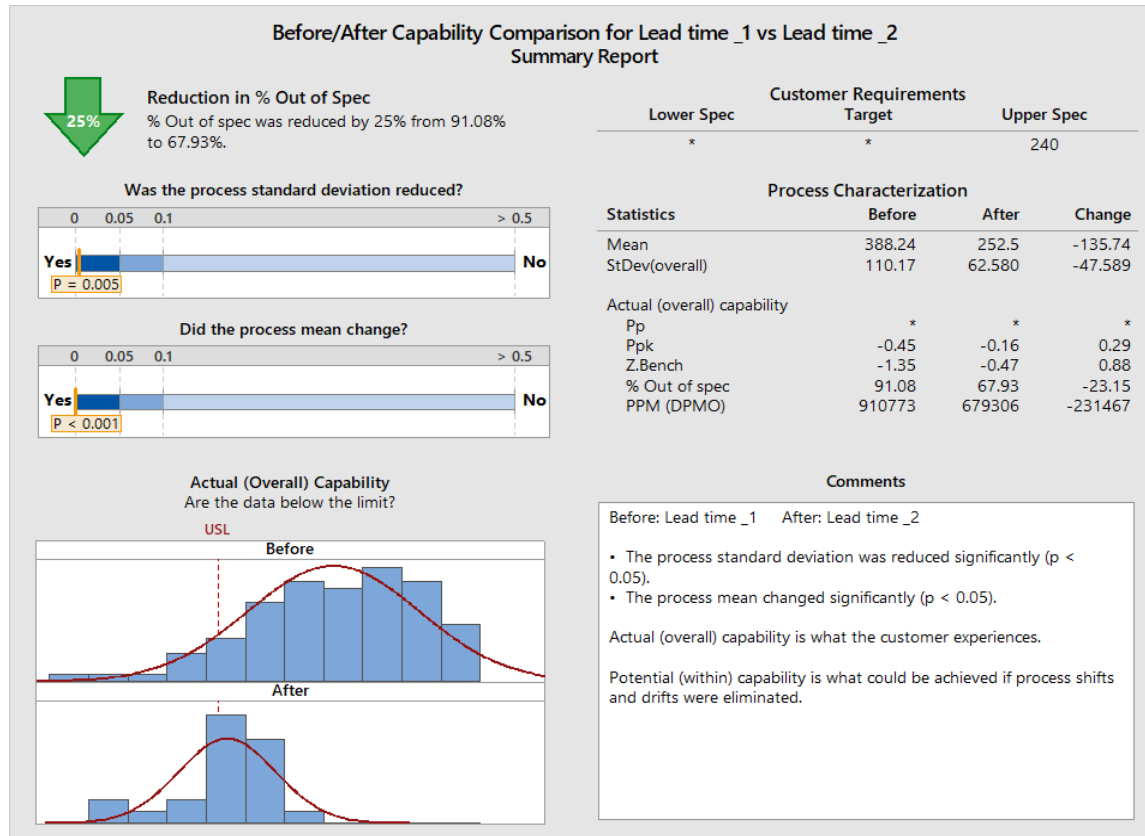
DURING FIRST 5 MINUTES, THERE IS TRAFFIC IN THE SOUTHERN DIRECTION 5 TO 10 MINUTES OF THE ROUND – IN THE NORTH, ETC.
DRIVER SHOULD TAKE THAT INTO ACCOUNT!

REGRESSION ON LEAD TIME



LEAD TIME GROWS TOWARDS THE END OF THE ROUND.

COMPARING LEAD TIME BEFORE-AFTER THE NEXT ROUND OF CHANGES



AVERAGE TIME HAS BEEN REDUCED. VARIANCE HAS BEEN REDUCED
% OF LATE DELIVERS HAS BEEN REDUCED.



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info@pi-sims.com | www.pi-sims.com