



The Dalmatian Test version
Comparison Study
Data-File

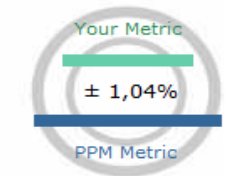
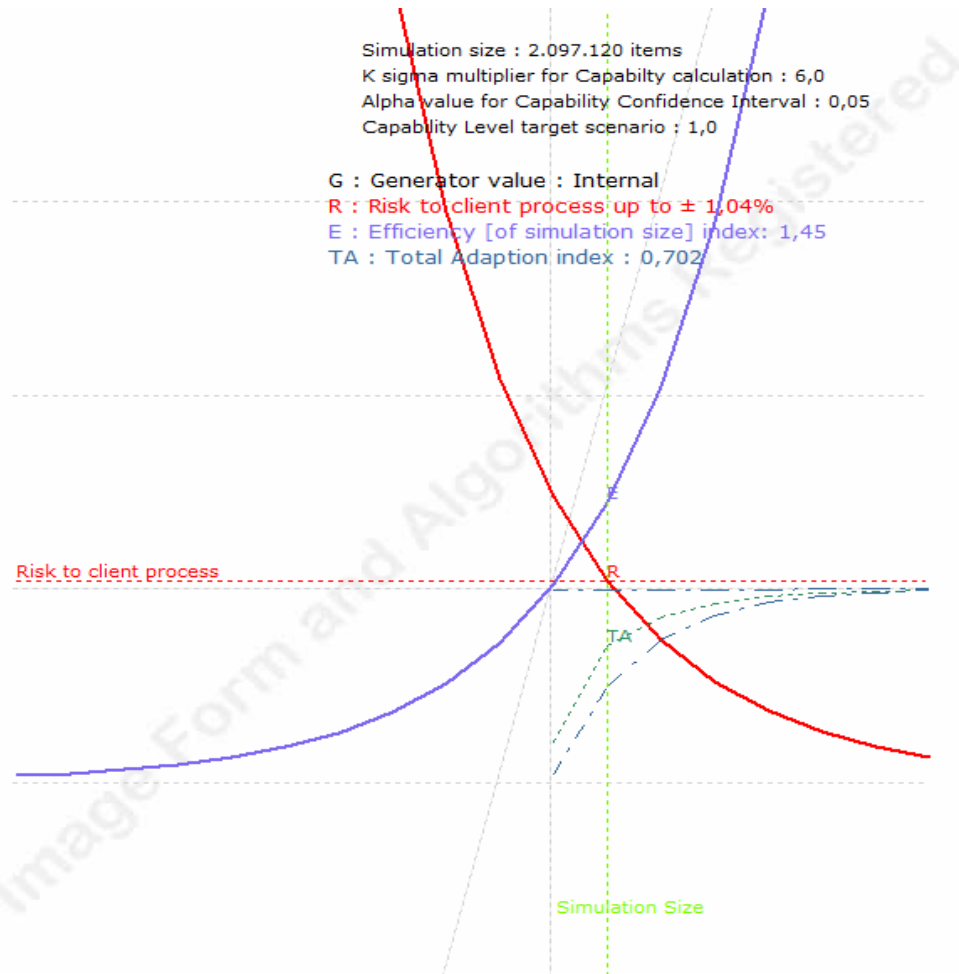
1.00.04.18
Beta_2_MB
not saved

[32 bit]

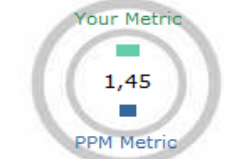
Registered pro edition

Is My Edition

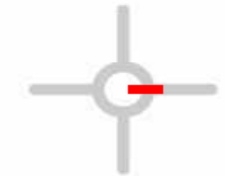
G.r.e.t.a p&ss graph - Power and Sample Size for Montecarlo Simulation



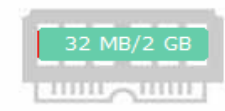
Unit Resolution Plot



Efficiency Plot



Expected Bias Value



Required Memory [32 bit]



This Comparison Study		Beta Distribution	
Generator		Mersenne Twister 2002	
Seed value		Internal	
Simulated Items		2.097.120	
K sigma multiplier for capability calculation		6,00	
Alpha value for Capability CI		0,05	
nearTrue extended range		disabled	
Unit In-Metric Test value [%]		auto CI	
Simulation size Efficiency index		1,45	
Total Adaption index		0,702	
Memory peak in this Win32 process [MB]		32,00	
Residual and available Win32 memory [%]		98,44%	
Total Time for this Comparison calculation [s]		3,71	

Data Entry Summary	[A]	[B]	[C]	[D]	[E]	[F]
Data Distributed as	Beta	Beta	Beta	Beta	Beta	d[0.5*x^2]/dx
1* Par Value	2	2	2	2	2	2
2* Par Value	3	3	3	3	3	3
3* Par Value						
4* Par Value						
Lower Spec Limit	0,1	0,1	0,1	0,1	0,1	0,1
Upper Spec Limit	0,9	0,9	0,9	0,9	0,9	0,9

Moment Values	[A]	[B]	[C]	[D]	[E]	[F]
Procedure	Master	Brute Normal	ISO D_ID	Bothe D_ID	LuLu	d[0.5*x^2]/dx
Moment 1 - [Mean]	0,4	0,399831	0,399831	0,399831	0,399831	0,4
Bias		-0,000169	-0,000169	-0,000169	-0,000169	
Sqrt(Moment 2) - [Standard Deviation]	0,2	0,199992	0,199992	0,199992	0,199992	0,2
Bias		-0,000008	-0,000008	-0,000008	-0,000008	
Moment 3 - [Skewness]	0,285714	0,286933	0,286933	0,286933	0,286933	0,285714
Bias		0,001219	0,001219	0,001219	0,001219	
Moment 4 - [Kurtosis]	-0,642857	-0,64151	-0,64151	-0,64151	-0,64151	-0,642857
Bias		0,001347	0,001347	0,001347	0,001347	
Moment 2 - [Variance]	0,04	0,039997	0,039997	0,039997	0,039997	0,04
Bias		-0,000003	-0,000003	-0,000003	-0,000003	
Coefficient of Variability	0,5	0,50019	0,50019	0,50019	0,50019	0,5
Mean Standard Error		0,000138	0,000138	0,000138	0,000138	

Distribution Identification Cycle	[A]	[B]	[C]	[D]	[E]	[F]
D(1)_ID - Kolmogorov-Smirnov	0	0,000939	0,000329	0,000329		

Calculated parameters i.e. Output to Client Process Capability Algorithm		L	U	[A] Theo	[B] Normal	[C] ISO D_ID	[D] Bothe D_ID	[E] LuLu	[F] Normal
PpK				0,540983	0,499739	0,770856	0,540651	0,540904	-0,122222
Bias					-0,041244	0,229873	-0,000333	-0,00008	-0,663206
PpK - Metric Test		0,539989	0,541978		false	false	true	true	false
PpL				0,540983	0,499739	0,770856	0,540651	0,540904	0,211111
Bias					-0,041244	0,229873	-0,000333	-0,00008	-0,329872
PpL - Metric Test		0,539989	0,541978		false	false	true	true	false
PpU				0,892762	0,83365	0,946574	0,893019	0,892566	-0,122222
Bias					-0,059112	0,053812	0,000257	-0,000196	-1,014984
PpU - Metric Test		0,891363	0,894161		false	false	true	true	false
Pp				0,716873	0,666695	0,875355	0,716835	0,716735	0,044444
Bias					-0,050178	0,158483	-0,000038	-0,000138	-0,672428
Pp - Metric Test		0,715879	0,717866		false	false	true	true	false
L-OofS				52300	66908,50095	10373,19996	52406,80041	52325,57031	263257,995
Bias					14608,50095	-41926,80004	106,800408	25,570306	210957,995
L-OofS - Metric Test	[auto CI]	51981,8666	52619,6775		false	false	true	true	false
L-OofS - Metric % Variation	[auto CI]	-0,61%	0,61%		27,93%	-80,17%	0,20%	0,05%	403,36%
U-OofS				3700	6193,053264	2257,633168	3691,493608	3706,511788	643066,1633
Bias					2493,053264	-1442,366832	-8,506392	6,511788	639366,1633
U-OofS - Metric Test	[auto CI]	3653,88737	3746,633961		false	false	true	true	false
U-OofS - Metric % Variation	[auto CI]	-1,25%	1,26%		67,38%	-38,98%	-0,23%	0,18%	17280,17%
OofS				56000	73101,55421	12630,83313	56098,29402	56032,08209	906324,1583
Bias					17101,55421	-43369,16687	98,294016	32,082094	850324,1583
OofS - Metric Test	[auto CI]	55635,75397	56366,31146		false	false	true	true	false
OofS - Metric % Variation	[auto CI]	-0,65%	0,65%		30,54%	-77,44%	0,18%	0,06%	1518,44%



BenchMark of Procedures	[A]	[B]	[C]	[D]	[E]	[F]
Procedure	Master	Brute Normal	ISO D_ID	Bothe D_ID	LuLu	d[0.5*x^2]/dx
Common statistical calculation [s]				0,47364	0,47364	
15 times the Kolmogorov-Smirnov cycle time for the identification of a unknown dataset (unknown master) [s]				39,95715	0	
Procedure Capability Algorithm [s]				0,000038	0,00002	
Estimated total Time [s] using Intel(R) Core(TM) i7-6700HQ CPU @ 2.60GHz				40,430828	0,47366	
Relative X Speed [LuLu vs KS-Bothe]					85,4	
Relative Robustess at this Simulation size					0,95	
Abjusted X Speed					81,1	

KS algorithm is used in this tool mainly to get the relative computing time in D_ID Cycle, without additional memory requirement.
 Note that if you use a different algorithm in the D_ID loop, the time and memory needed for GoF will increase significantly. (or alternatively the simulation size must be reduced)
 The absolute speed is instead a function of the performance and characteristics of used generator (NtRand © 3.3. in our case)

Procedure comparison at same Win32 memory

