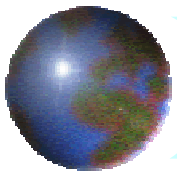
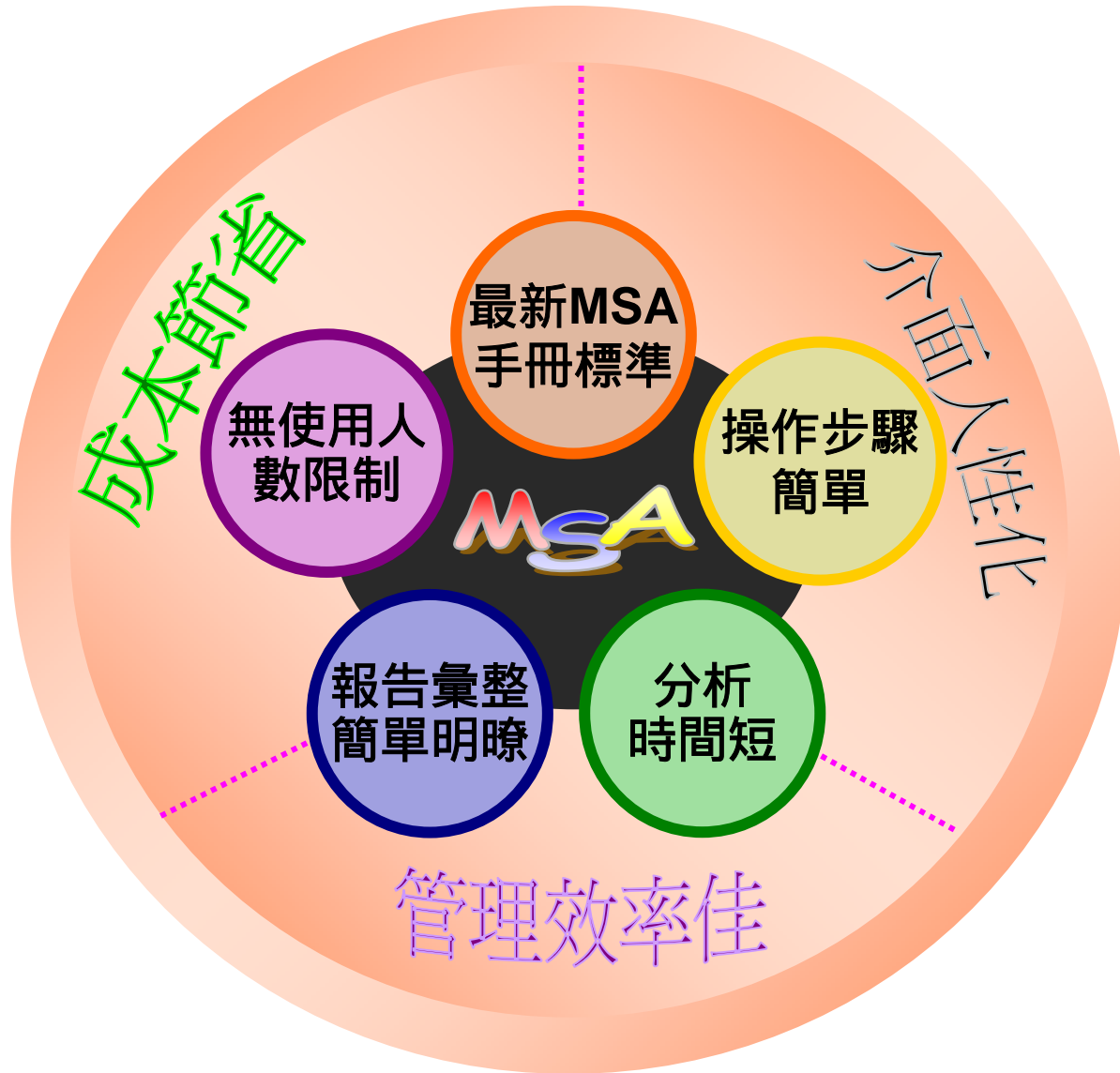
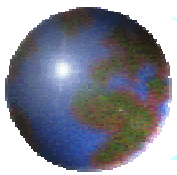


Easy MSA 簡介



特點





使用介紹 - 以計量值GRR分析為例

Step 1 : 輸入分析基本資料
(若數據與基本資料設定不符合，會出現紅字提醒！)

Step 2 : 輸入量測數據
(反黃色區塊為數據輸入區)

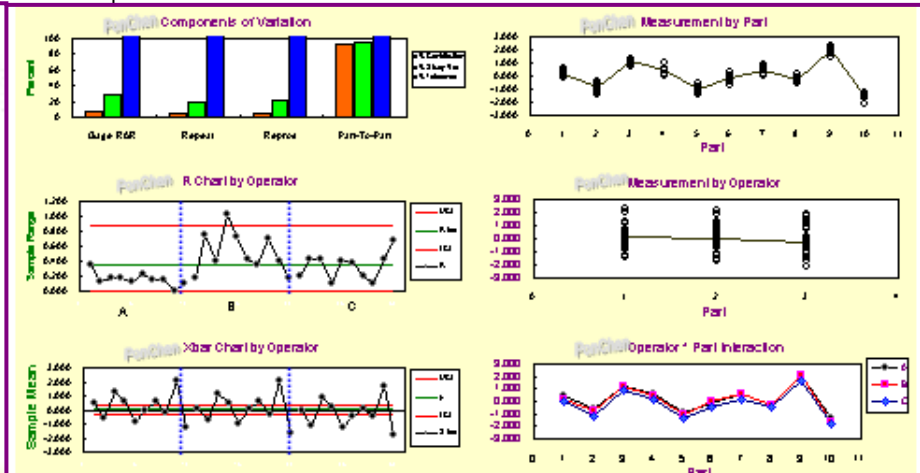
Step 3 : 點選 **資料分析** 按鈕

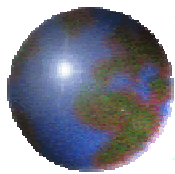
Step 4 : 列印圖形分析報表

PonChen Co., Ltd.											
Repeatability and Reproducibility Analysis Report											
Appraiser	PART										
Appraiser	1	2	3	4	5	6	7	8	9	10	Average
A	1										
A	2										
A	3										
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Rbar *n
Range	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Rbar *n
B	1										
B	2										
B	3										
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Rbar *n
Range	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Rbar *n
C	1										
C	2										
C	3										
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Rbar *n
Range	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Rbar *n

4

Source	SS	MS	F	P	Source	Total Gage R&R	Repeatability	Reproducibility	Part-To-Part	Total Variation
人	0	0.00000	0.00000	0.0000	人	0.000000	0.000000	0.000000	0.000000	0.000000
量測人	40	0.26880	0.0196+3	0.43+	人*量測	0.000000	0.000000	0.000000	0.000000	0.000000
Repeatability	40	2.75853	0.04892		Part-To-Part	1.0000721			91.73	
Total	80	9.6411			Total Variation	1.0000721			100.00	





計量值分析報表

PonChen Co., Ltd.

Bias and Linearity Analysis Report

零件編號	量值 (參考值) X	偏性分析					
		1	2	3	4	5	
量 測 次 數	1	5.8000	1.7000	5.1000	5.8000	7.6000	9.1000
	2	5.7000	1.5000	1.9000	5.7000	7.7000	9.1000
	3	5.9000	1.4000	+1.0000	5.9000	7.8000	9.5000
	4	5.9000	1.5000	5.0000	5.7000	9.1000	9.1000
	5	4.0000	1.7000			9.5000	9.5000
	6					9.5000	9.5000
	7					9.5000	9.5000
	8					9.5000	9.5000
	9					9.6000	9.6000
	10					9.3000	9.3000
	11					9.1000	9.1000
	12	6.1000	1.4000	1.8000	6.1000	7.7000	9.4000
	13	6.1000					
	14	5.6000					
	15	6.0000					
平均值		6.626	2.92	1.126	6.626	7.764	9.343
偏性 (標準差) Y		6.626	6.92	6.126	6.626	-6.292	-6.617

偏性、線性

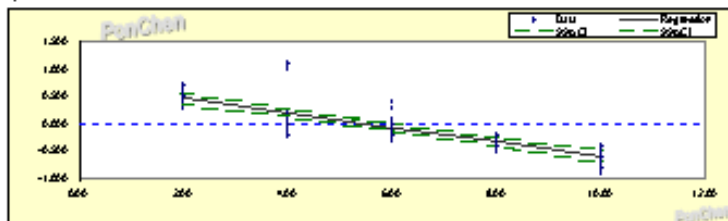
Gage Bias

Measured Value	n(m)	Mean	StdDev _s	% Error _s
15	8.000	0.22514	0.05319	

Measured Value	Reference Value	Bias		95% Clot Bias	
		Mean	StdDev	Lower	Upper
0.114	10.3	2.208	0.008	-0.1218	0.1949

Gage Linearity

Parameter	Coeff	T	(95.0%)	Significant
Constant	0.7287	10.53	2.0017	**
Slope	-0.0117	-12.049		**
R-Sq	71.49%			
% Linearity	19.17%			



Repeatability and Reproducibility Analysis Report

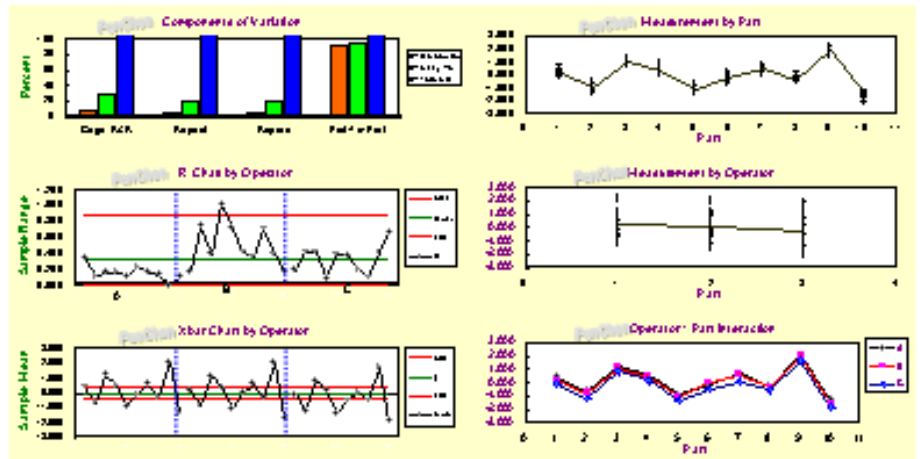
Appraiser (Trial#)	PART										Average
	1	2	3	4	5	6	7	8	9	10	
A	1	0.1900	-0.5600	1.1700	0.7100	-0.8100	0.0300	0.5900	-0.1100	1.1200	-1.1600
	2	0.1000	-0.6800	1.1700	0.5000	-0.9300	-0.1100	0.7500	-0.1000	1.9900	-1.1500
	3	0.6700	-0.5800	1.1700	0.6700	-0.8700	-0.1100	0.6600	-0.1700	1.0100	-1.1100
Average		0.3533	-0.4733	1.1700	0.6133	-0.5367	0.2767	0.4133	-0.2267	1.0467	-0.7467
Range		0.5700	0.1000	0.0000	0.1700	0.1200	0.0000	0.0000	0.0000	0.8800	0.0000
B	1	0.0800	-0.7700	1.1900	0.0100	-0.5600				1.0000	-1.0800
	2	0.1500	-1.1100							1.1100	-1.6300
	3	0.0700	-0.4400							1.1900	-1.5000
Average		0.1000	-0.7733							1.0667	-1.4033
Range		0.0800	0.6700							0.0000	0.1300
C	1	0.0700	-1.1100							1.1700	-1.9000
	2	-0.1100	-1.1100							1.5000	-1.1700
	3	-0.1500	-0.9000							1.8700	-3.1600
Average		-0.0767	-1.0400							1.5800	-2.0433
Range		0.0600	0.2100							0.3700	2.0000
Part Average		0.3533	-0.4733	1.1700	0.6133	-0.5367	0.2767	0.4133	-0.2267	1.0467	-0.7467

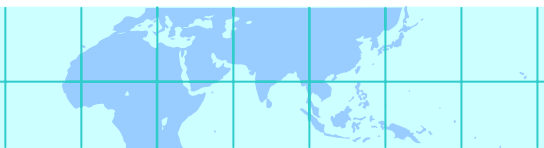
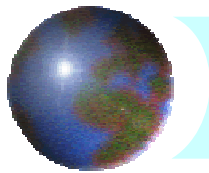
Gage R&R

分析結果:

Source	DF	SS	MS	F	P	Source	Via Comp	% Contribution (of Via Comp)
Total Gage R&R	9	0.00190	0.00021	492.281	0.000	Total Gage R&R	0.0019051	3.27
Repeatability	2	0.18728	0.09364	19.408	0.000	Repeatability	0.0450322	9.27
Reproducibility	80	2.75269	0.045632	0.694	0.974	Reproducibility	0.0521229	4.99
Total	99	9.64711				Person A	0.0521229	4.99
						Person B	0.0000000	0.00
						Person C	0.0000000	0.00
						Part-to-Part	1.0000000	91.73
						Total Variation	1.0000000	100.00

Source	StdDev (SD)	Study Via (S _v)	% Study Via (%S _v)	% Tolerance (%Tol)
Total Gage R&R	0.01321	0.00004	28.75	975.00
Repeatability	0.214495	0.00000	19.83	297.30
Reproducibility	0.220004	0.00000	20.98	279.97
Person A	0.220004	0.00000	20.98	279.97
Person B	0.000000	0.00000	0.00	0.00
Person C	0.000000	0.00000	0.00	0.00
Part-to-Part	1.000000	0.99996	99.73	125.00
Total Variation	1.000000	0.99996	100.00	150.00





計量值分析報表

PonChen Co., Ltd.

Stability Analysis Report

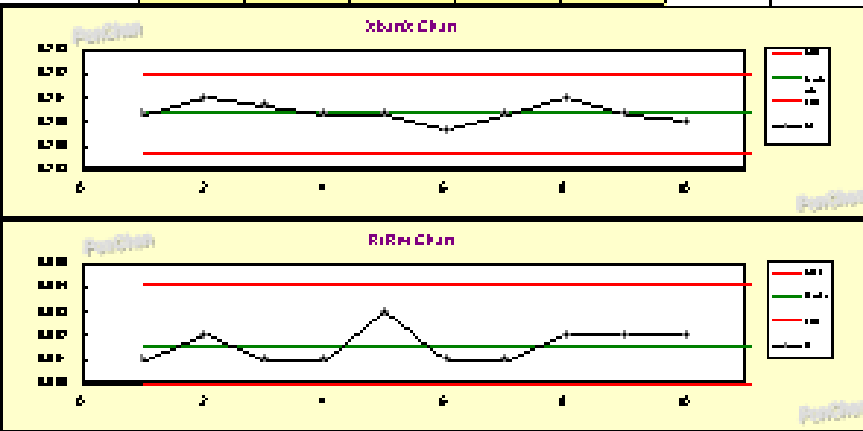
資料總數	10
樣本大小	9
最大值	0.282
最小值	0.259
X bar (X) 平均值	0.2804
RRm 平均值	0.0018

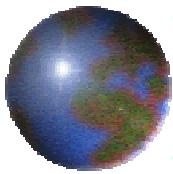
X bar (X, cm)		RRm (cm)	
UCL	LCL	UCL	LCL
0.2820	0.2590	0.0041	0.0000
QC	0	QC	0

Item / 序號	X ₁	X ₂	X ₃	X ₄	X ₅	X bar (X)	RRm
1	0.2800	0.2800	0.2810			0.2800	0.0010
2	0.2800	0.2820	0.2810			0.2810	0.0020
3	0.2810	0.2810	0.2800			0.2807	0.0010
4	0.2810	0.2800	0.2800			0.2800	0.0010
5	0.2800	0.2820	0.2590			0.2800	0.0090
6	0.2590	0.2800	0.2800			0.2597	0.0010
7	0.2800	0.2800	0.2810			0.2800	0.0010
8	0.2810	0.2820	0.2800			0.2810	0.0020
9	0.2810	0.2810	0.2590			0.2800	0.0020
10	0.2800	0.2810	0.2590			0.2800	0.0020
11							
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穩定性

所有分析報表
均可直接列印
成A4大小！





審核封面報表

A	B	C	D	E	F	L	M	N	O	P	Q	R	S
<div style="text-align: center;"> <input type="button" value="清除數據"/> <input type="button" value="PVT Ratio(%FWToler)報告"/> <input type="button" value="%R&R(%RV)報告"/> </div>													
PonChen Co.,Ltd.													
Measurement System Analysis Report													
Part No./Name : (零件編號/名稱)			Gage Name : (量具名稱)										
Characteristics : (量測特性)			Gage No : (量具編號)										
Specifications : (規格公差)			Gage Type : (量具型式)										
Gage R&R						Stability							
%Equipment Variation=100 [EWTM] =100 [1.2874/334]						Xbar Chart is <input checked="" type="checkbox"/> in control <input type="checkbox"/> out of control							
%EV = 19.68%						R/R Chart is <input checked="" type="checkbox"/> in control <input type="checkbox"/> out of control							
						Bias							
%Appraiser Variation=100 [AVTM] =100 [1.374/334]						95% CI of Bias is (-0.1216, 0.1749)							
%AV = 20.94%						<input checked="" type="checkbox"/> Accept <input type="checkbox"/> Reject H ₀ : Bias=0							
%Part Variation = 100 [PWTM] =100 [4.244/334]						Linearity							
%PV = 95.78%						-0.38, 0.933, -2.0017							
						<input type="checkbox"/> Accept <input checked="" type="checkbox"/> Reject B ₁ : Intercept(bias)=0							
						<input type="checkbox"/> Accept <input checked="" type="checkbox"/> Reject B ₂ : Slope=0							
%Repeatability and Reproducibility = 100 [RRM] =100 [1.8794/334]						COMMENTS							
R&R & R = 28.73%													
The Number of Distinct Categories = 1.41 (PWGER) = 1.41 (4.244/3.009)													
<input checked="" type="checkbox"/> %R&R <input type="checkbox"/> RT Rate													
Prepared By (分析者)			Approved By (審核者)										
Date (日期)			Date (日期)										

6

5

黑字表示未定標準則
 藍字表示合格，且具"佳"
 綠色字表示可接受，但有改善空間
 紅色斜體字表示不合格(或超出界限、有顯著差異)，需採取改善措施。

- Step 5 : 補齊封面的基本資料
- Step 6 : 點選"報告" 按鈕
(以顏色來標示分析指標合格與否)
- Step 7 : 印出封面並與分析報告
裝訂後送交主管審核