

When measuring a part feature it is imperative that the gage or test equipment provides accurate results. When calibrating a gage, we are assuring that the gage is accurate under the controlled conditions of the metrology department. However, what happens when that gage is put to use on the production floor? In order to accurately evaluate a gage for production use a gage study should be performed in the environment and manner in which the gage will be used.

InfinityQS Integrates MSA, GTS & SPC Into One Cohesive Suite!

InfinityQS MSA (Measurement Systems Analysis) is the only product on the market today that is fully integrated with both a gage tracking and calibration system and a shop floor SPC data collection system. This integration allows gage studies to be performed in the exact same manner as your SPC data collection, assuring the gage will meet all the requirements imposed by shop floor data collection. InfinityQS MSA was written in accordance with the **AIAG Measurement Systems Analysis** document.

In addition, because InfinityQS SPC, InfinityQS GTS and InfinityQS MSA are fully integrated into one cohesive suite, control is tightened in all aspects of SPC data collection. Operators can be prevented from collecting data using out-of-cal or incapable gages.

Select Your Database of Choice

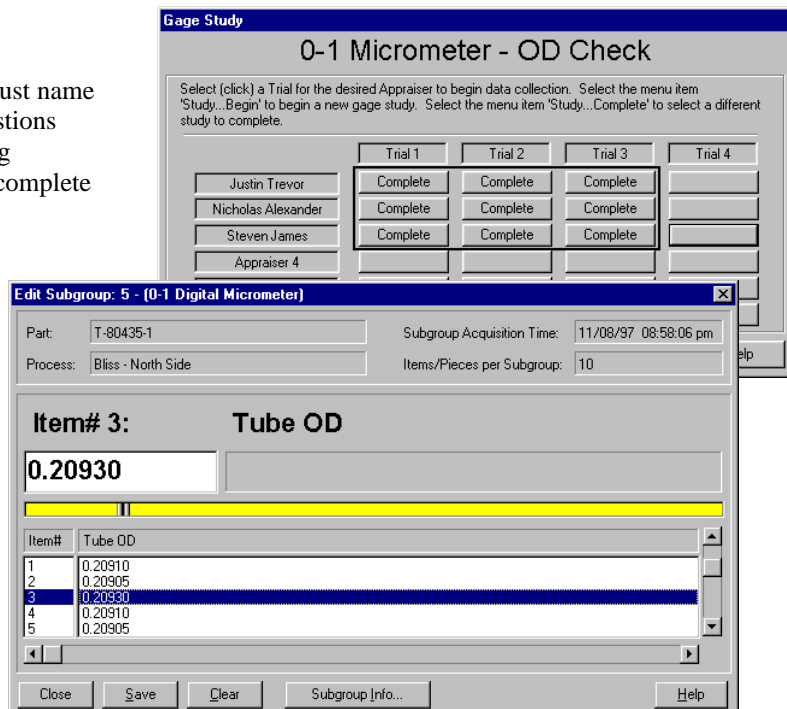
Like all InfinityQS products, InfinityQS MSA is a true 100% ODBC compliant application and will run under any ODBC compliant database. This includes single tier databases such as Access all the way up to the high-end multi-tier client-server databases such as Oracle, Sybase, Informix and Progress.

Key Features

InfinityQS MSA is simple to use. Just name your gage study, answer a few questions regarding data entry and start taking measurements. When all trials are complete analysis is automatic.

Familiar Data Entry

Data Entry is identical to the familiar InfinityQS SPC data entry. If you are used to using the LKS flagship product, InfinityQS SPC, you will feel right at home with InfinityQS MSA. As a matter of fact, the whole product has the same look and feel as InfinityQS SPC. And unlike most Gage R&R products, your study can include multiple gages, characteristics and even calculated fields.



Continued...

InfinityQS MSA supports **five reports plus control chart analysis** of each gage study. These reports are patterned after the AIAG document, *Measurement Systems Analysis*.

Gage R&R Control Chart

The *Gage R&R Control Chart* graphically shows how the appraisers compare to one another as well as the control limits of the gaging system. This report includes three analysis sections: GR&R results using the Average and Range Methods, Control Chart display and Analysis data. This report is the ideal report to provide to your customers.

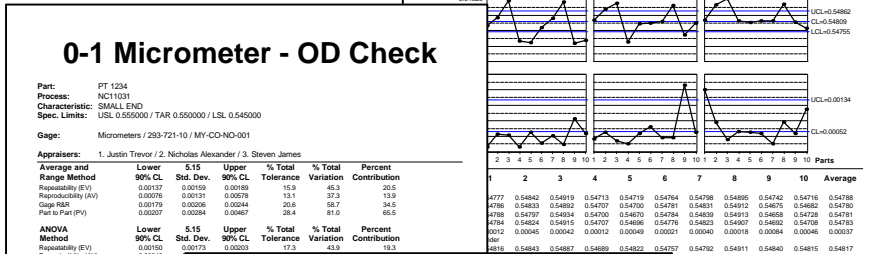
Chart Selection?

What Chart Type?

Please specify the type of chart you want to create.

Gage R&R Control Chart
 Gage R&R Summary
 Gage R&R Total Tolerance
 Gage R&R Total Variation Report
 List Gage Studies
 View Gage Study

OK **Cancel**



Gage R&R Summary

With the *Gage R&R Summary*, one can view all statistics from an Average/Range method and the ANOVA method on a single report.

0-1 Micrometer - OD Check

Part: PT 1234
 Process: NC11031
 Characteristic: SMALL END
 Spec. Limits: USL 0.555000 / TAR 0.550000 / LSL 0.545000

Gage: Micrometers / 293-721-10 / MY-CO-NO-001

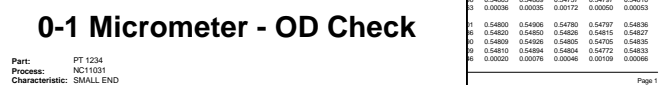
Appraisers: 1. Justin Trevor / 2. Nicholas Alexander / 3. Steven James

Average and Range Method	Lower 90% CL	5.15 Std. Dev.	Upper 90% CL	% Total Tolerance	% Total Variation	Percent Contribution
Repeatability (EV)	0.00137	0.00159	0.00189	15.9	45.3	20.5
Reproducibility (AV)	0.00078	0.00131	0.00228	13.1	37.3	13.9
Gage R&R	0.00179	0.00208	0.00444	20.8	58.7	34.5
Part to Part (PV)	0.00207	0.00284	0.00467	28.4	81.0	65.5

ANOVA Method	Lower 90% CL	5.15 Std. Dev.	Upper 90% CL	% Total Tolerance	% Total Variation	Percent Contribution
Repeatability (EV)	0.00150	0.00173	0.00203	17.3	43.9	19.3
Reproducibility (AV)	0.00046					
Operator x Part (Interaction)	0.00054					
Gage R&R	0.00219					
Part to Part (PV)	0.00184					

Gage R&R Total Tolerance & Variation Reports

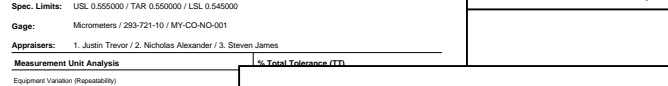
The *Gage R&R Total Tolerance Report* is used to show all detail calculations for the components of variation compared to the engineering tolerance of the measured test characteristic. You can also generate a *Gage R&R Total Variation Report* to show detailed calculations used to compare the measurement system variation to product variation.



View Dataset

Of course, you can view all the raw measurement data in spreadsheet format using the **View Dataset** chart.

With all the features and integration, *InfinityQS MSA* is the premier measurement systems analysis product on the market.



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Gage: Micrometers / 293-721-10 / MY-CO-NO-001

Appraisers: 1. Justin Trevor / 2. Nicholas Alexander / 3. Steven James

Operator	Trial	Part	SMALL END	Operator	Trial	Part	SMALL END
1. Justin Trevor	Trial 1	Part 1	0.547305	2. Nicholas Alexander	Trial 3	Part 5	0.547705
1. Justin Trevor	Trial 1	Part 2	0.548422	2. Nicholas Alexander	Trial 3	Part 6	0.548003
1. Justin Trevor	Trial 1	Part 3	0.549134	2. Nicholas Alexander	Trial 3	Part 7	0.548275
1. Justin Trevor	Trial 1	Part 4	0.547127	2. Nicholas Alexander	Trial 3	Part 8	0.548804
1. Justin Trevor	Trial 1	Part 5	0.547189	2. Nicholas Alexander	Trial 3	Part 9	0.547200
1. Justin Trevor	Trial 1	Part 6	0.547637	2. Nicholas Alexander	Trial 3	Part 10	0.547656
1. Justin Trevor	Trial 1	Part 7	0.547981	3. Steven James	Trial 1	Part 1	0.548001
1. Justin Trevor	Trial 1	Part 8	0.548946	3. Steven James	Trial 1	Part 2	0.548117
1. Justin Trevor	Trial 1	Part 9	0.547418	3. Steven James	Trial 1	Part 3	0.548054
1. Justin Trevor	Trial 1	Part 10	0.547760	3. Steven James	Trial 1	Part 4	0.547881
1. Justin Trevor	Trial 1	Part 11	0.547964	3. Steven James	Trial 1	Part 5	0.547737
1. Justin Trevor	Trial 2	Part 1	0.548333	3. Steven James	Trial 1	Part 6	0.548010
1. Justin Trevor	Trial 2	Part 2	0.548918	3. Steven James	Trial 1	Part 7	0.547599
1. Justin Trevor	Trial 2	Part 3	0.547070	3. Steven James	Trial 1	Part 8	0.548061
1. Justin Trevor	Trial 2	Part 4	0.547002	3. Steven James	Trial 1	Part 9	0.547903
1. Justin Trevor	Trial 2	Part 5	0.547810	3. Steven James	Trial 1	Part 10	0.547966
1. Justin Trevor	Trial 2	Part 6	0.548209	3. Steven James	Trial 2	Part 1	0.548300
1. Justin Trevor	Trial 2	Part 7	0.549120	3. Steven James	Trial 2	Part 2	0.548424
1. Justin Trevor	Trial 2	Part 8	0.548186	3. Steven James	Trial 2	Part 3	0.548462
1. Justin Trevor	Trial 2	Part 9	0.547855	3. Steven James	Trial 2	Part 4	0.548687
1. Justin Trevor	Trial 2	Part 10	0.547974	3. Steven James	Trial 2	Part 5	0.548359
1. Justin Trevor	Trial 2	Part 11	0.548335	3. Steven James	Trial 2	Part 6	0.548203
1. Justin Trevor	Trial 2	Part 12	0.547003	3. Steven James	Trial 2	Part 7	0.548002
1. Justin Trevor	Trial 2	Part 13	0.548695	3. Steven James	Trial 2	Part 8	0.548062
1. Justin Trevor	Trial 2	Part 14	0.548385	3. Steven James	Trial 2	Part 9	0.548146
1. Justin Trevor	Trial 2	Part 15	0.549113	3. Steven James	Trial 2	Part 10	0.548198
1. Justin Trevor	Trial 2	Part 16	0.548690	3. Steven James	Trial 2	Part 11	0.548277
1. Justin Trevor	Trial 2	Part 17	0.548273	3. Steven James	Trial 2	Part 12	0.548338
2. Nicholas Alexander	Trial 1	Part 1	0.548163	3. Steven James	Trial 2	Part 13	0.548388
2. Nicholas Alexander	Trial 1	Part 2	0.548431	3. Steven James	Trial 2	Part 14	0.548389
2. Nicholas Alexander	Trial 1	Part 3	0.548871	3. Steven James	Trial 2	Part 15	0.548392
2. Nicholas Alexander	Trial 1	Part 4	0.548985	3. Steven James	Trial 2	Part 16	0.548454
2. Nicholas Alexander	Trial 1	Part 5	0.548218	3. Steven James	Trial 2	Part 17	0.548454
2. Nicholas Alexander	Trial 1	Part 6	0.547020	3. Steven James	Trial 2	Part 18	0.548353
2. Nicholas Alexander	Trial 1	Part 7	0.547917				
2. Nicholas Alexander	Trial 1	Part 8	0.548113				
2. Nicholas Alexander	Trial 1	Part 9	0.548403				
2. Nicholas Alexander	Trial 1	Part 10	0.548153				
2. Nicholas Alexander	Trial 1	Part 11	0.548282				
2. Nicholas Alexander	Trial 1	Part 12	0.548026				
2. Nicholas Alexander	Trial 1	Part 13	0.549143				
2. Nicholas Alexander	Trial 1	Part 14	0.547077				
2. Nicholas Alexander	Trial 1	Part 15	0.547977				
2. Nicholas Alexander	Trial 1	Part 16	0.547959				
2. Nicholas Alexander	Trial 1	Part 17	0.548066				
2. Nicholas Alexander	Trial 1	Part 18	0.548071				
2. Nicholas Alexander	Trial 1	Part 19	0.548688				
2. Nicholas Alexander	Trial 1	Part 20	0.548107				
2. Nicholas Alexander	Trial 1	Part 21	0.547941				
2. Nicholas Alexander	Trial 1	Part 22	0.548025				
2. Nicholas Alexander	Trial 1	Part 23	0.548008				
2. Nicholas Alexander	Trial 1	Part 24	0.548691				

For more information visit our web site at www.infinityqs.com or contact your local InfinityQS representative.