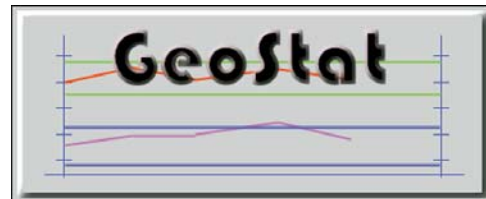


Hemmel Engineering Products, Inc.  
 6520 Lockport Road  
 Niagara Falls, NY 14305  
 (716) 297-8644  
 (716) 297-9405 fax  
 www.hemmel.com

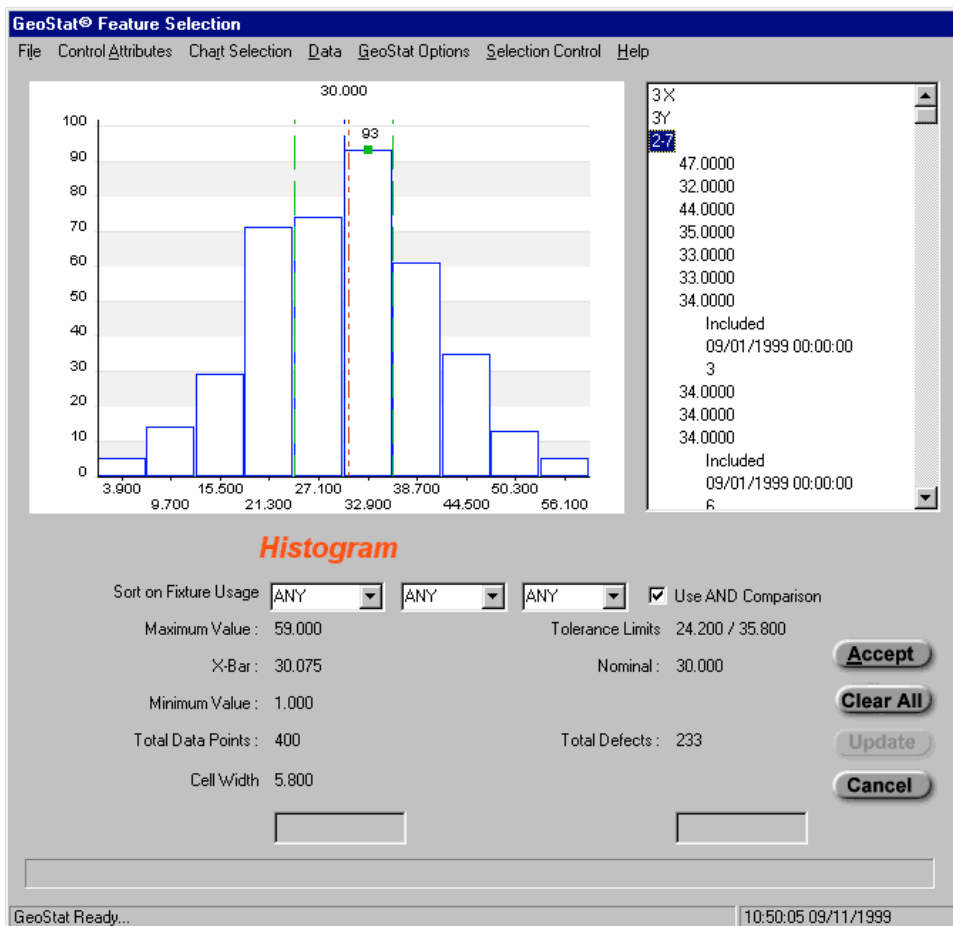


The GeoStat Interactive is an integral part of Geomet dimensional software. Activated by an access code, GeoStat works interactively with Geomet during part inspections to record data. When this data is recorded, you can review the following data instantly:

- |                |              |
|----------------|--------------|
| Histogram      | X-Bar Sigma  |
| Moving Average | Moving Range |
| Range          | Raw Data     |
| X-Bar          |              |

Each chart can be controlled with date ranges, fixture identifications and lot size changes. Entering of manual data is permitted to add variables that are not inspected with the CMM during a part program.

The interactive GeoStat program does not require any configuring on file handling or printing controls. Geomet accesses the various charts directly during a part program run to print out the latest available data



# GEOSTAT FAQ'S



## *The GeoStat Program*

GeoStat Interactive is an integral part of Geomet dimensional software. Activated by an access code, GeoStat works interactively with Geomet during part inspections to record data.

## *Does GeoStat come already active in Geomet?*

No. GeoStat is part of the native code for all Geomet levels, but requires a purchased code to activate it.

## *What is the cost of GeoStat?*

\$1,290.00 for one unit. Discounts do apply for a multiple site license.

## *Which levels of Geomet does GeoStat work with?*

GeoStat works with Geomet 301, 101 and requires no activation of additional options. For Geomet Junior, you will be required to have Programming option activated.

## *What version of Geomet is required?*

GeoStat is part of Geomet. All customers will be upgraded to v.4.00 when purchasing GeoStat.

## *Can GeoStat be used outside Geomet?*

No. GeoStat is part of Geomet as one program.

## *Will GeoStat be available as a separate program?*

Yes. GeoStat Manager a companion to GeoStat will be a separate program capable of working with the existing GeoStat database with expanded features. The release date for GeoStat Manager has not been established.

### ***How do you activate GeoStat?***

Starting with Geomet v.1.05, all you do is enter the authorization code inside Geomet to make GeoStat active.

### ***How does GeoStat work with part inspections?***

Geomet provides a direct connection to the GeoStat database through the use of Feature Tagging. Geomet will create the file names and databases when one does not exist.

### ***What charts are available in GeoStat?***

Xbar, Range, Xbar Sigma, Histogram, Moving Average, Moving Range, Raw Data.

### ***Does GeoStat require the user to open databases?***

No. One unique feature of GeoStat is that it works seamlessly with the current part inspection program. By pressing the <F12> function key, GeoStat will open all data and simultaneously update all charts with the current data.

### ***Can GeoStat have measured results entered manually?***

Yes. You can create new data records and attach measurement results to them.

### ***What kind of data does GeoStat accept?***

A GeoStat measurement data point contains the measurement, time/date, operator, serial numbers, and up to three fixtures IDs for each measurement value.

### ***What are Fixtures?***

Fixtures are available to provide filtering capabilities for the incoming measured values. For example you may want to track all production made in CNC1 using fixture 1a. This eliminates mixing production from different machining cells.

### ***Can GeoStat allow data to be imported and exported?***

Yes. GeoStat can accept data created in applications such as spreadsheets and word processors. Exporting is accomplished of either the entire database or just a selected record.

### ***Does GeoStat provide subgroup rolling?***

Yes. GeoStat can be setup to review only the last  $x$  subgroups for all charts. This is configurable independently for each record.

### ***Does GeoStat provide other filters?***

Yes. GeoStat can filter the measurement values for fixtures, date ranges, and subgroup lookbacks.

### ***What makes GeoStat unique?***

We believe its seamless integration with Geomet makes it the most intuitive system on the market. The operator is not required to handle files or create templates for capturing data. All you do is activate it with your part inspection and it shows up. No more complicated than requesting to measure a circle.

**GeoStat® Data Characteristics**

Characteristic Name:

Feature Characteristics

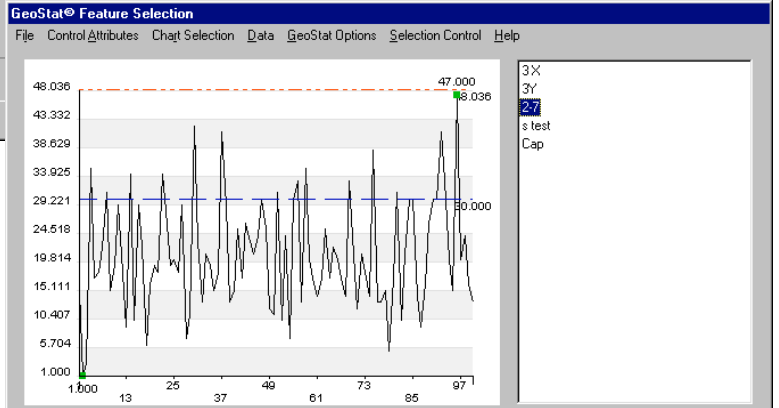
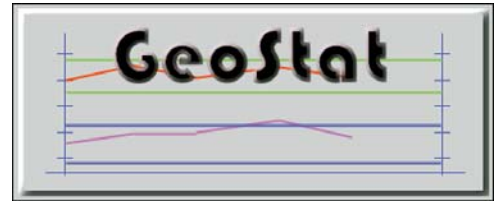
Nominal Value	(+) Plus	(-) minus
<input type="text" value="30.000"/>	<input type="text" value="5.800"/>	<input type="text" value="-5.800"/>

Lot Size:  Subgroup Size:

Upper Tolerance Limit:

Lower Tolerance Limit:

OK  
Cancel  
Clear Data



**Range Chart**

Sort on Fixture Usage     Use AND Comparison

Data Points Used: 1 - 400 Upper Control Limit: 48.036

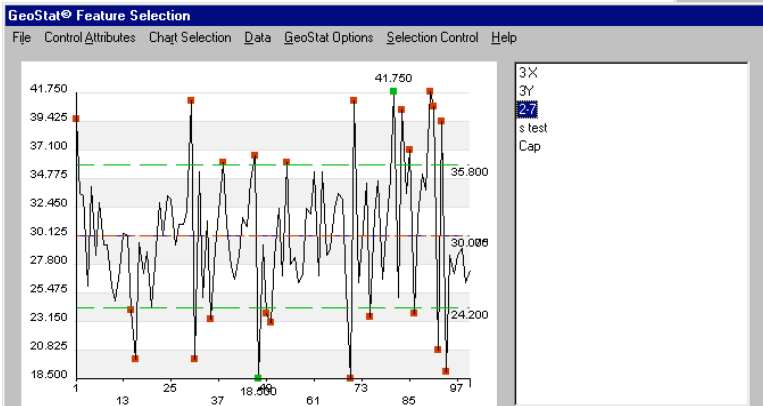
Number of Subgroups: 100 Maximum Range: 47.000

Subgroup Size: 4 Average Range: 20.760

Standard Deviation: 9.092

Accept  
Clear All  
Update  
Cancel

10:41:45 09/11/1999



**X-Bar Control**

Sort on Fixture Usage     Use AND Comparison

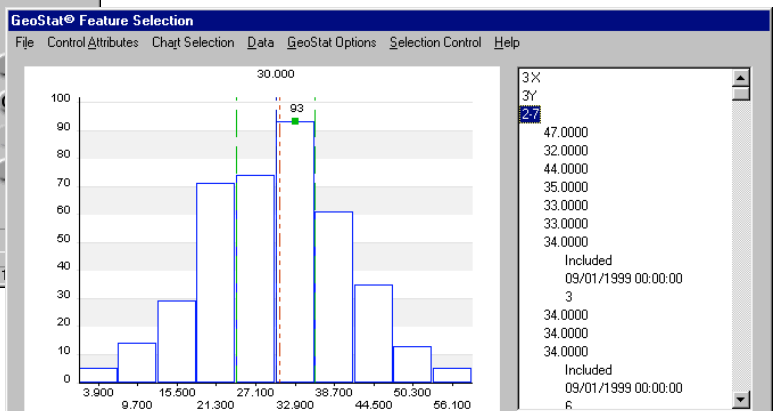
Data Points Used: 1 - 400 X-Bar: 30.075

Total Number of Subgroups: 100 Standard Deviation: 5.172

Subgroup Size: 4

Total Defects: 24

GeoStat Ready... 10:40:25 09/11/1999



**Histogram**

Sort on Fixture Usage     Use AND Comparison

Maximum Value: 59.000 Tolerance Limits: 24.200 / 35.800

X-Bar: 30.075 Nominal: 30.000

Minimum Value: 1.000

Total Data Points: 400 Total Defects: 233

Cell Width: 5.800

Accept  
Clear All  
Update  
Cancel

GeoStat Ready... 10:50:05 09/11/1999