

mDATA® User Guide

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I. Introduction

Welcome to the mDATA® User Guide. This manual will provide you basic instructions on how to implement and use the mDATA® software. The mDATA® software program is utilized to review and modify Laser Micrometer measurements (OD) / Lot History Records (LHR) generated by the measureOD® program

- If you are a measureOD® Data Storage Subscriber then the LHR records may be accessed from any computer attached to the Internet with the mDATA® software.

NOTE: measureOD® Data Storage Subscribers pay an annual fee for this service. In this model, the laser micrometer measured data is stored on our MySQL server.

- If you are NOT a measureOD® Data Storage Subscriber then the mDATA® software must be run on the computer where the data is measured OR the files generated by the measureOD® program may be copied and moved to the computer running the mDATA® program.

NOTE: mDATA® expects the data to be stored in the Documents folder on your computer.

- If you have multiple manufacturing lines running the measureOD® software each LHR is assigned a unique tracking number.

II. Reference Documents

- **MeasureOD® End User License Agreement (EULA)**, Roth Technologies, LLC
- **mSPECIFY® User Guide**, Roth Technologies, LLC
- **measureOD® User Guide**, Roth Technologies, LLC
- **measureOD® Install Guide**, Roth Technologies, LLC

III. Necessary Components

The following components are necessary in order to run the mDATA® software:

1. The software must be installed on your computer via the Installation CD that was provided with your order. The latest released software may also be downloaded from our website at www.measureod.com.

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2. The MySQL ODBC driver must be loaded on your test computer. This only needs to be done one time for each computer.
3. Your computer that is used to run the software MUST be connected to the Internet and Port 3306 must be open on your Test Computer and Network. There is an interchange of material data between the computer and the MySQL Server. If the interchange of data is slow and/or interrupted, the program may not run correctly or timeout.
4. Data must have been generated by the measureOD® system.

IV. Running the Program

Execute the mDATA® program by double clicking program icon. This ICON is provided on the desktop as part of the software installation. It is also available under the PROGRAM manager.



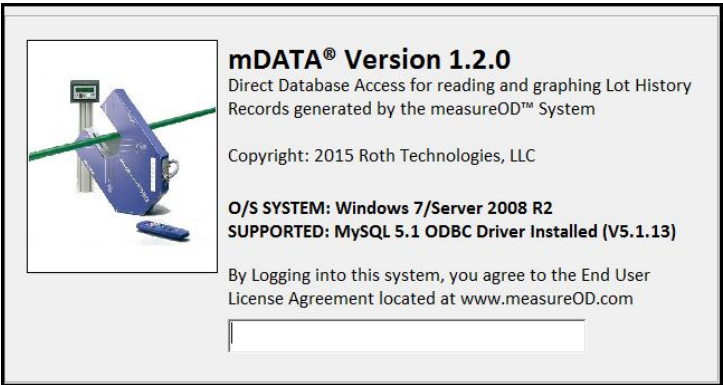
V. Using the mDATA® Software

In a production environment, the following steps may be taken for reviewing data generated by the MeasureOD® system with the mDATA® software utility program.

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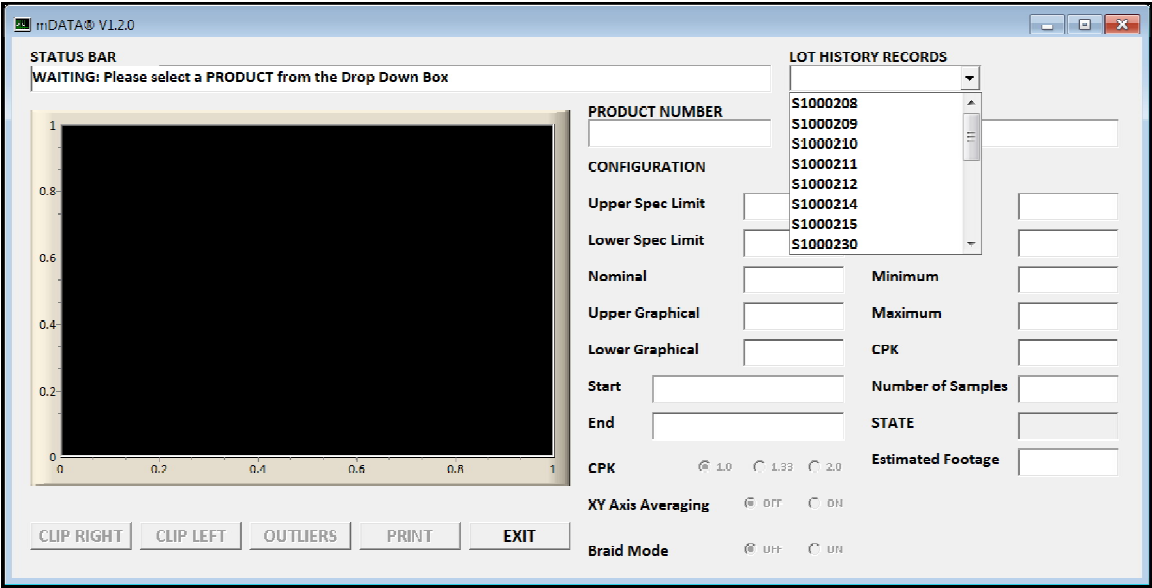
Step 1: Log into the system. Your company has been provided a twelve character length password for logging into the MeasureOD® system. You may submit a request to sales@measureod.com to change your password character string. This character string identifies your company within the MeasureOD® system.

If you happen to lose control of your passcode, contract sales@measureod.com and we will change your login passcode.



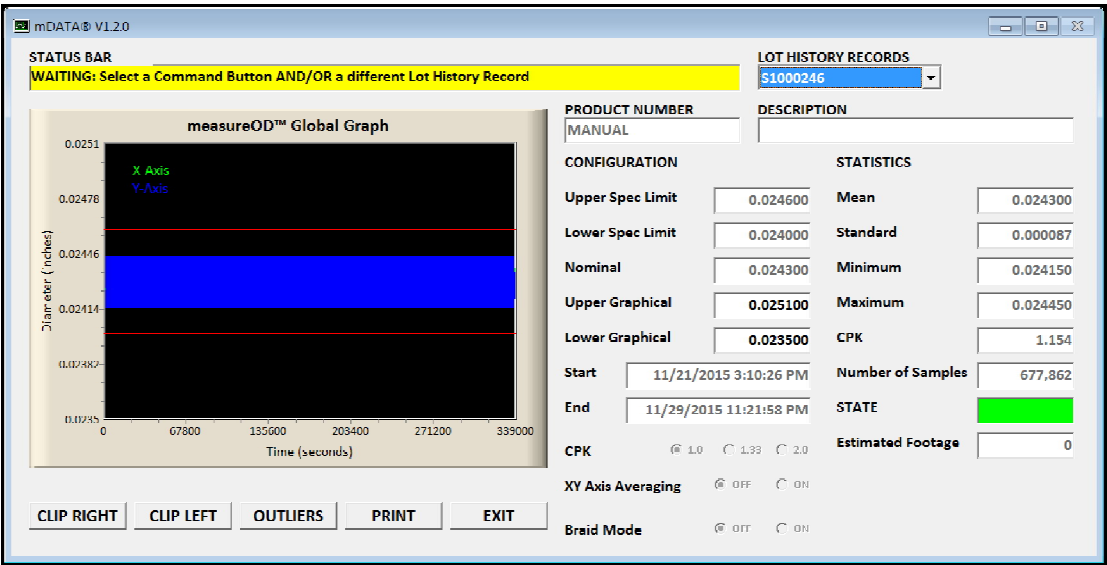
After logging into the system, the Main Menu will appear on the screen as shown. The software at this point is waiting for a product to be selected from the Lot History Records drop down menu. Select the LHR that you wish for the software to load.

NOTE: If the LHR consists of a large number of data points, it may take the software some time to load the data into memory. Please be patient.



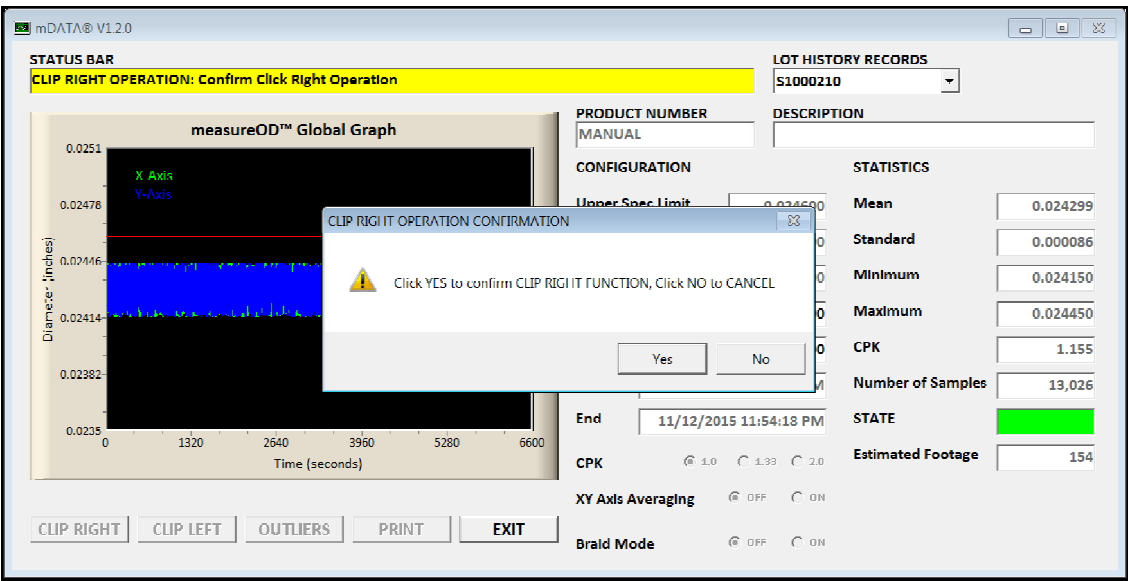
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Upon loading a LHR, the software command buttons become functional as shown. We will now describe the command function keys available that can be applied to a LHR.



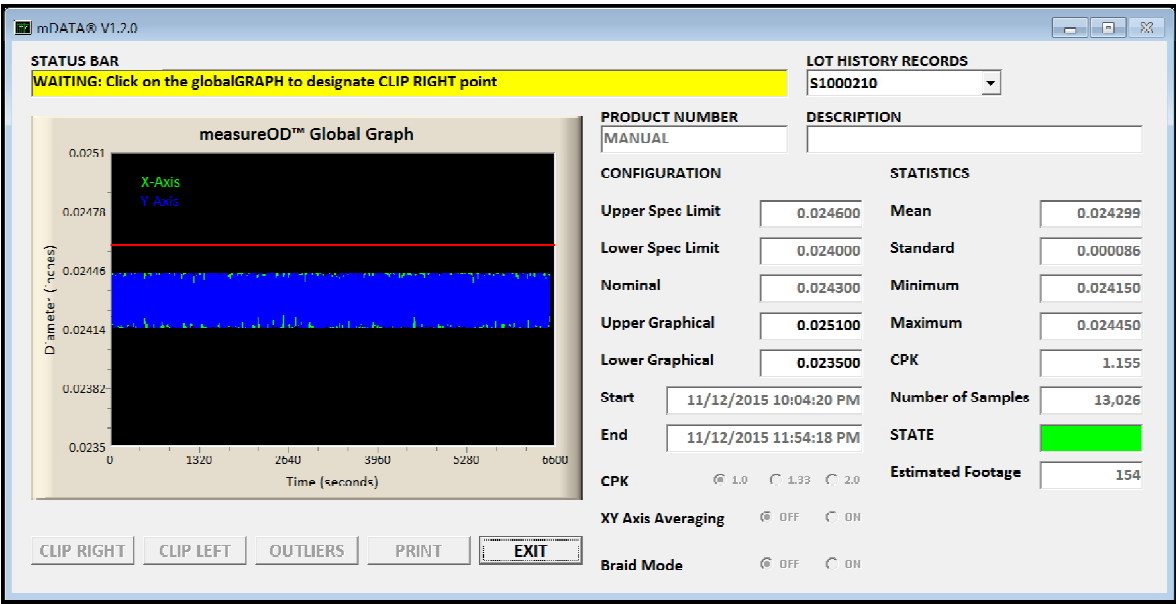
CLIP RIGHT: This allows the User to delete all the data points to the RIGHT of an indicated position.

A summary of this procedure is provided for this command button. A confirmation screen is provided to make sure this is what the User intends. Click YES to proceed and NO to cancel.



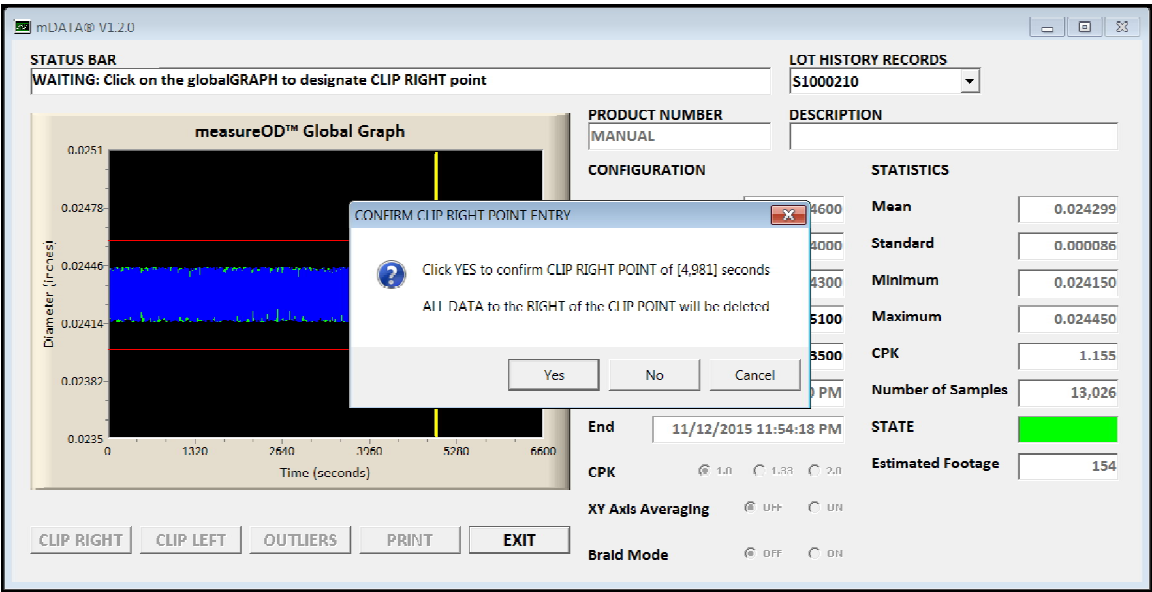
CLIP RIGHT: INDICATE THE CLIP RIGHT POINT ON THE GRAPH

The STATUS BAR shows that the software is waiting for this INPUT from the USER. Find and indicate the CLIP RIGHT point on the GLOBAL GRAPH with your mouse cursor and click the right mouse button.



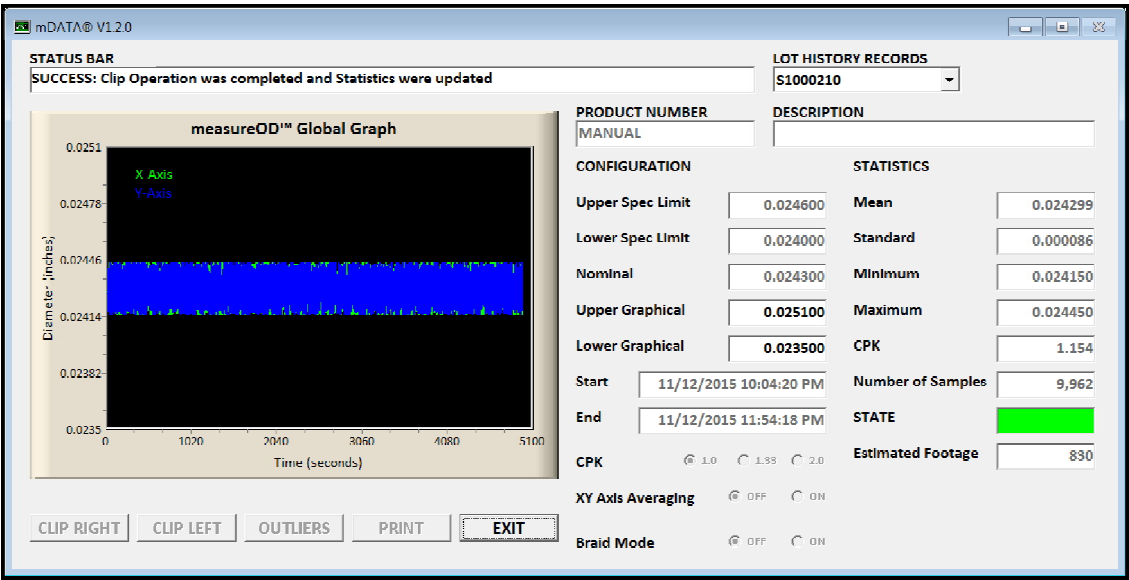
CLIP RIGHT: CONFIRM THE CLICK RIGHT ENTRY

The software will draw a YELLOW LINE at your indicated CLIP RIGHT entry point. Select YES to continue, NO to reenter the CLIP RIGHT point, and CANCEL to quit this function.



CLIP RIGHT: OPERATION COMPLETED

Upon confirmation, the software will (a) delete the data and (b) compute the statistics for the abridged data set. This data manipulation is NOT SAVED permanently but allows the User to obtain an updated print out of the dataset via the PRINT function.



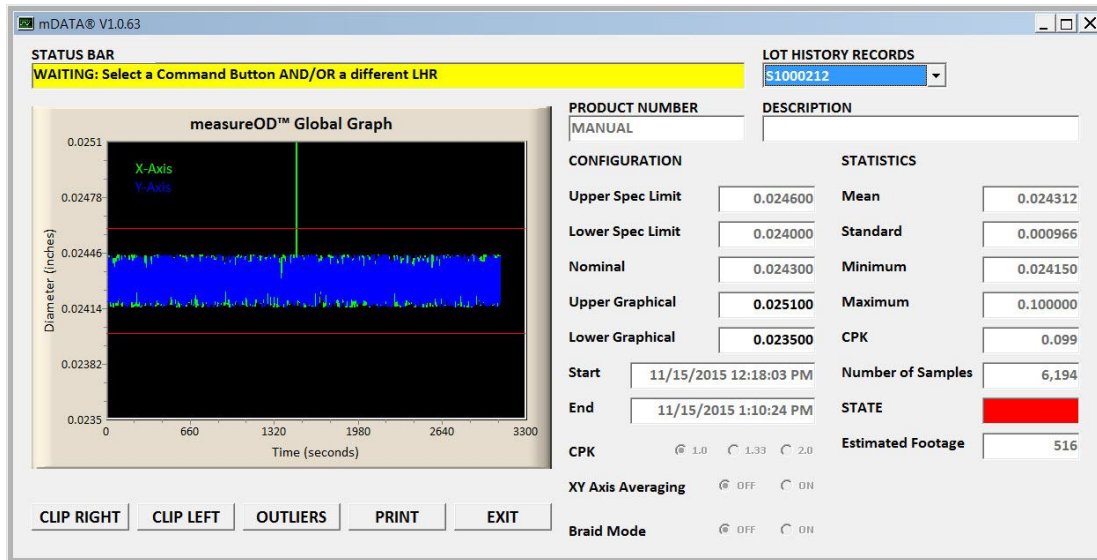
CLIP LEFT: This allows the User to delete all the data points to the LEFT of an indicated position. This process is similar to the CLIP RIGHT process and is not detailed in this document.

Upon completion of the CLIP LEFT process, the software will (a) delete the data and (b) compute the statistics for the abridged data set. This data manipulation is NOT SAVED permanently but allows the User to obtain an updated print out of the dataset via the PRINT function.

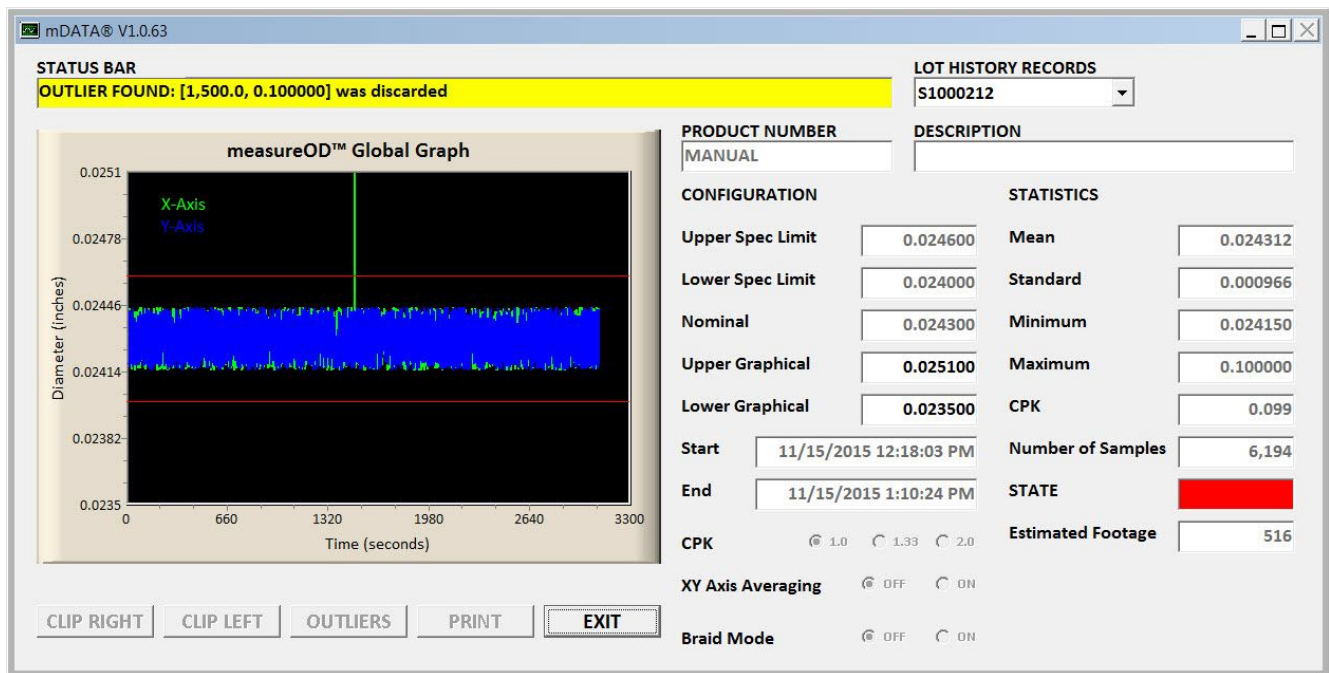
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OUTLIERS: This function removes statistical outliers from your data set. A statistical outlier is defined as being more than six (6) standard deviations from the mean value.

This screenshot shows a LHR record with a potential outlier at the midway point of the data set. Select the OUTLIERS command button to remove it.

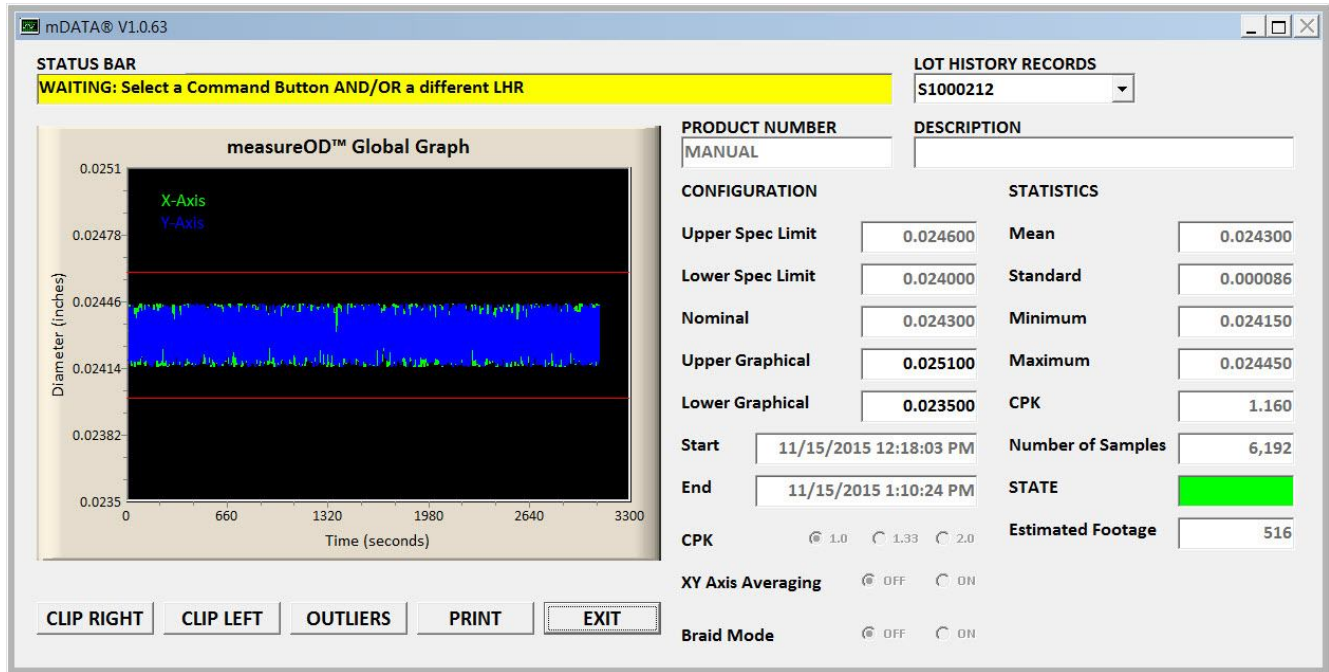


Upon selecting the OUTLIERS function, the software reviews the data and displays potential data outliers that it has found. In this case, the mDATA® software has found the outlier and displayed the time stamp and measured diameter of the outlier.



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The outlier data is removed from the LHR and the statistics for the data set is recomputed. In this example, the manufactured lot has gone from a FAILED state to a PASSED state. This data manipulation is NOT SAVED permanently but allows the User to obtain an updated print out of the dataset via the PRINT function.



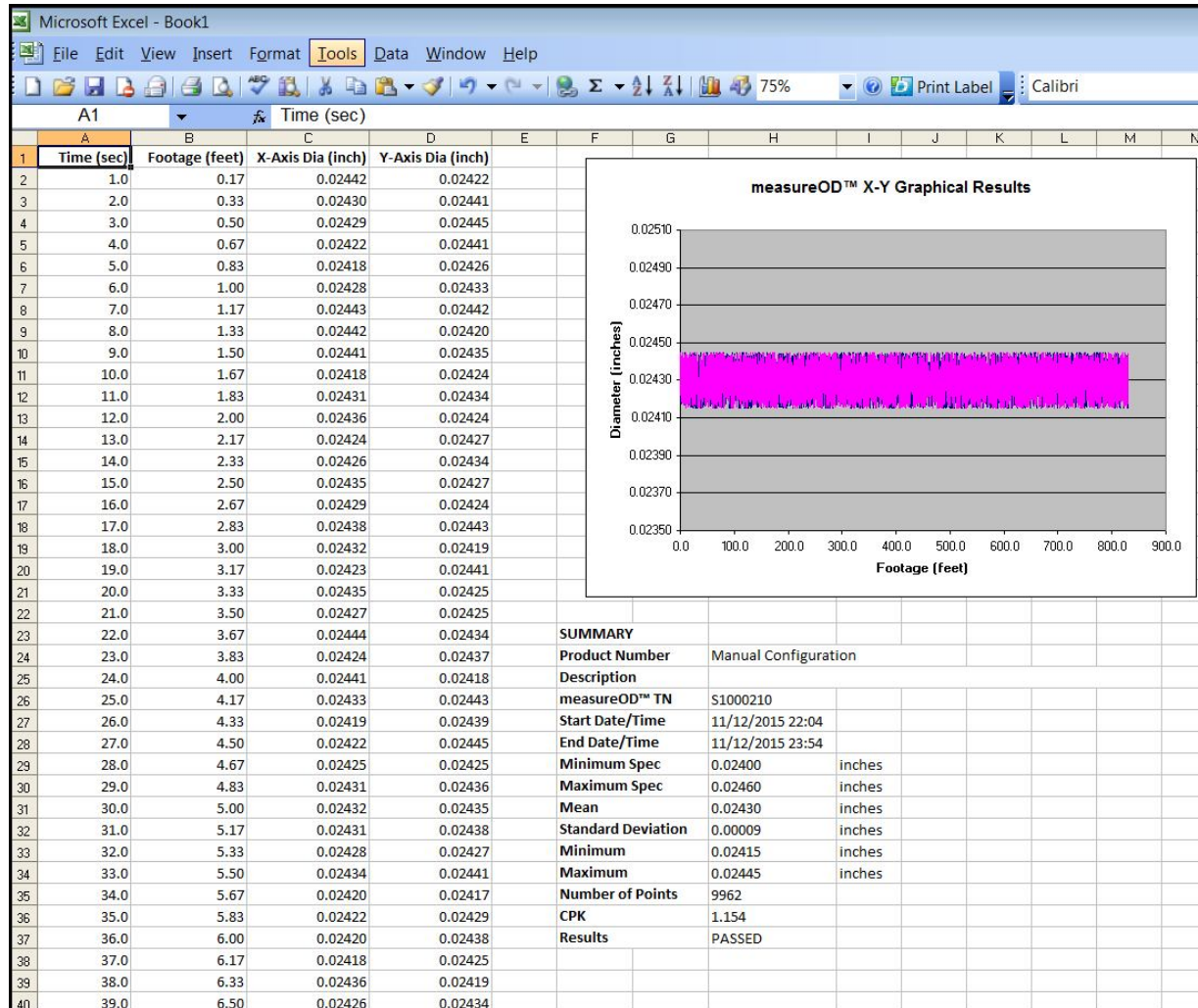
The User will probably wonder when this function might be useful. The OUTLIER function may be able to remove measurement "noise" caused by the following events.

- Lumps or obvious defects in the product that will be removed via visual or automated inspection
- Measurements errors -- such as in the case where the product line is bumped or moved out of the laser micrometer measurement window
- Debris on the product line that can be removed

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PRINT: With this function, the data set is exported to MicroSoft Excel. This software must be loaded on the computer and is NOT provided with our product.

If the data set is large, please be patient as it takes a long time to export data from the program to Microsoft Excel (depending on the speed of your computer).



EXIT: Upon confirmation, the program is exited. The software will ask for a confirmation from the User.

VI. Reporting Errors

Please report errors via email to sales@cathcad.com. Please provide as much information as possible with regards to the setup of the program when the error occurred.