



uVision-PB Portable Brinell software
Instruction Manual



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1.About The System Overview

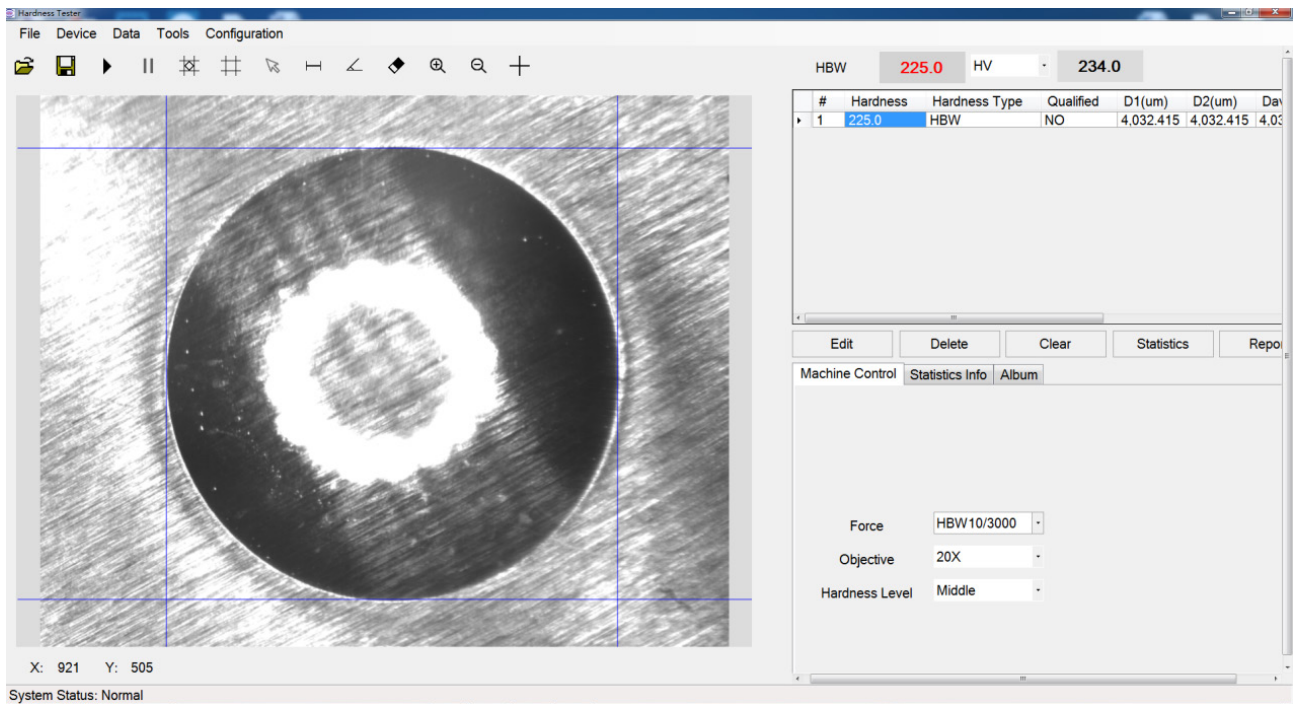
- ▲ This version of the software provides a static view of the Brinell circular indentation picture.
- ▲ This version of the software to provide real-time view of Brinell indentation, screenshot save function.
- ▲ This version of the software to provide manual indentation indentation, automatic measurement, manual measurement, manual fine-tuning function.
- ▲ This version of the software provides a Brinell indentation zoomfunction.
- ▲ This version of the software to provide Brinell indentation image quality real-time adjustment function.
- ▲ This version of the software provides information on the indentation measurement display, edit, delete, print, export Word function.

2.About Software Working Requirements



- ▲ Software installation environment must be Win7/Win10 and above 32/64 bit operating system; the main frequency of COMPUTER CPU is not less than 2GHz; the computer has at least 4GB of memory.
- ▲ Need at least two USB ports: one for connecting the camera; one for connecting the software dongle.
- ▲ Need to install the camera driver.
- ▲ You need to install the .Net Framework 4.0 runtime environment.
- ▲ Need to install Microsoft Office 2007software.
- ▲ For detailed software installation steps, see the "About Software Installation" section.

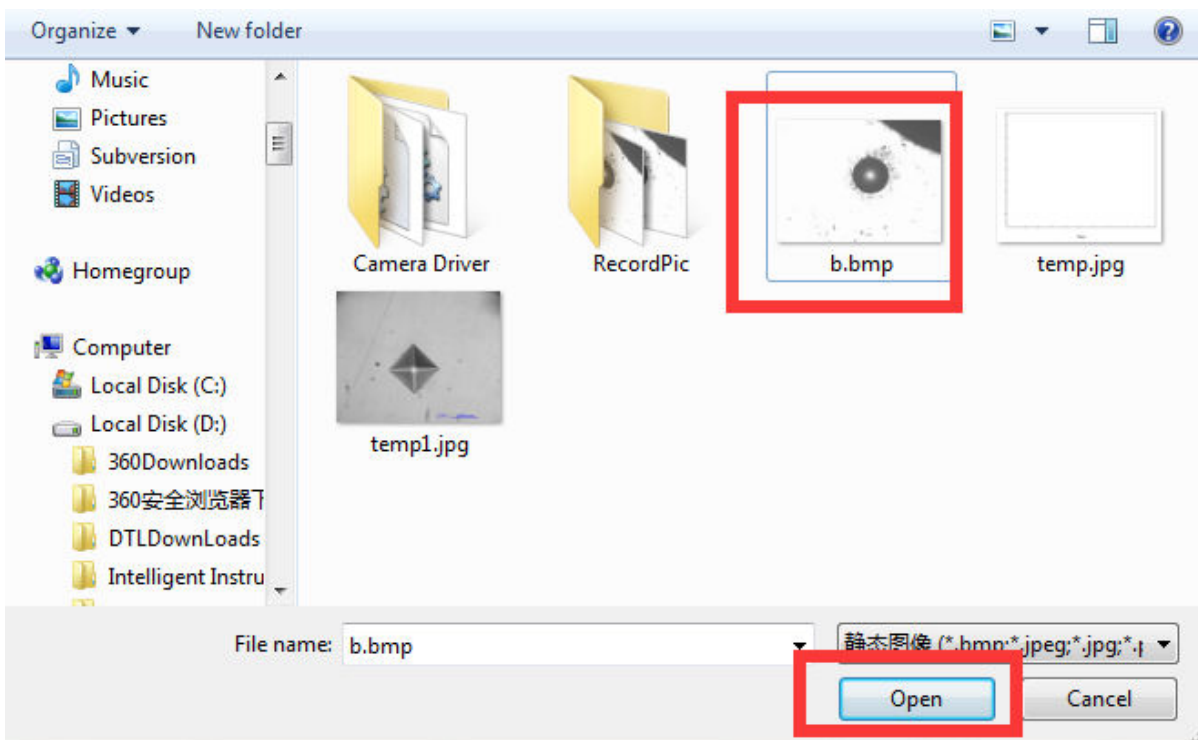
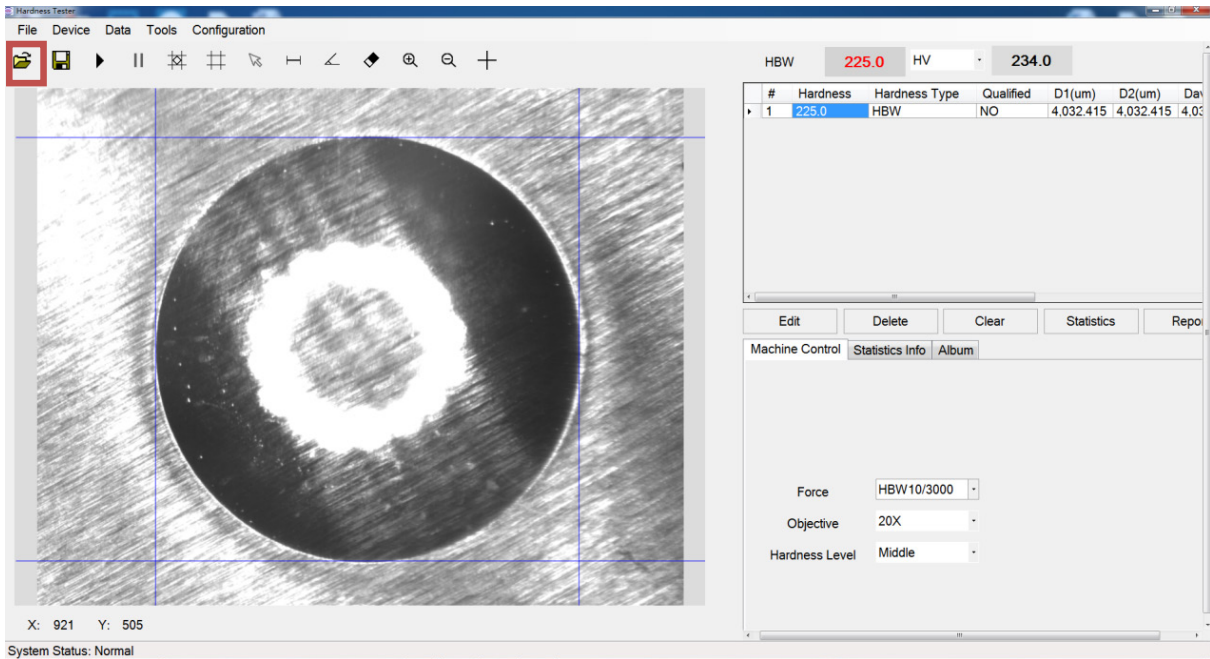
2.About Software Working Requirements

1.About the hardware and software interface



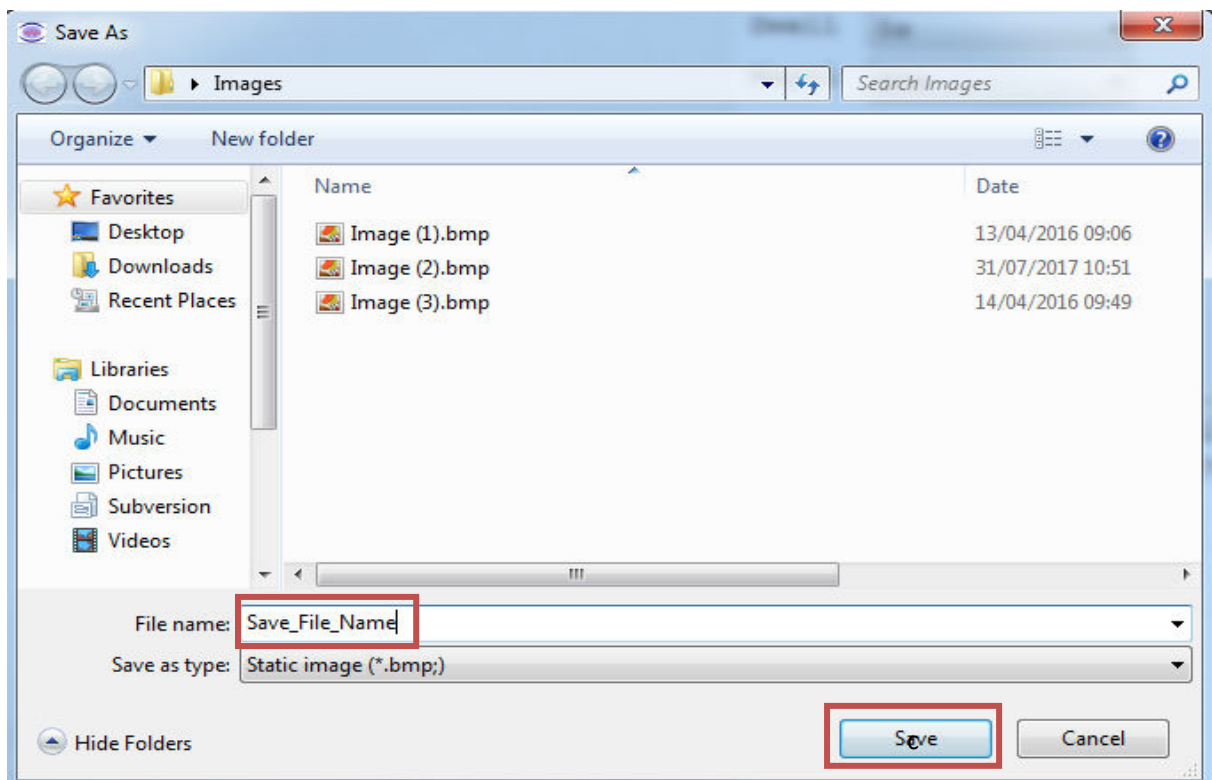
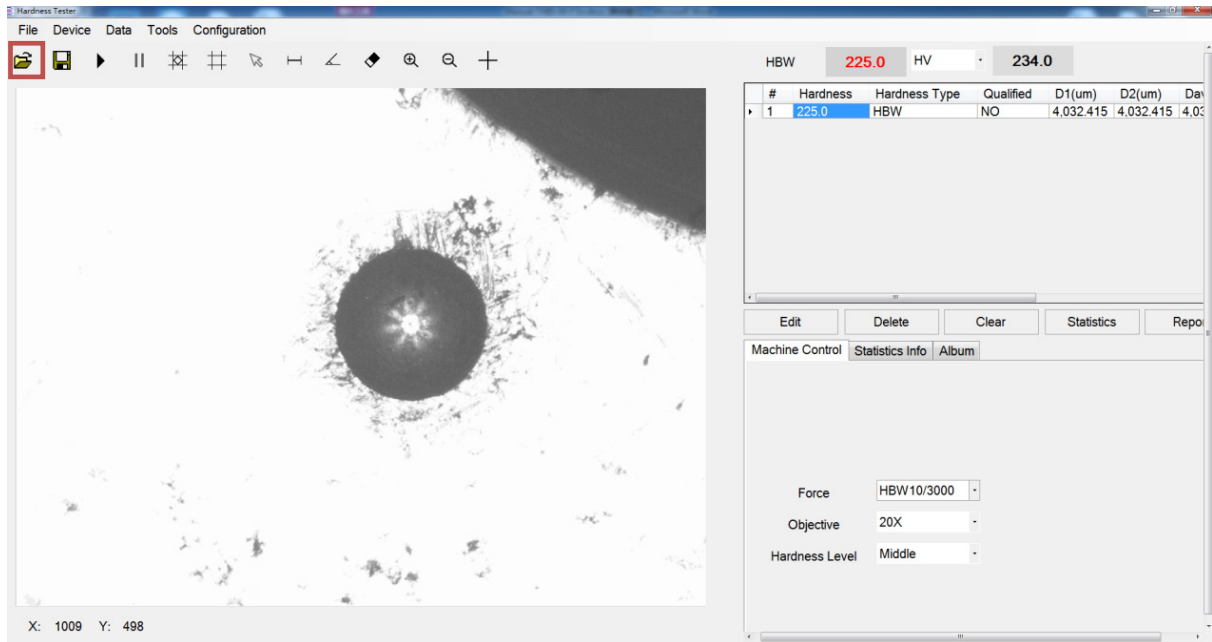
3.About Static Picture Browsing

▲ Click on the main interface "Open Image" button → Select the picture to be viewed → Click the "  " button on the picture selection interface. (When static picture browsing switch to camera real-time browsing You must click the "  " button on the main interface)



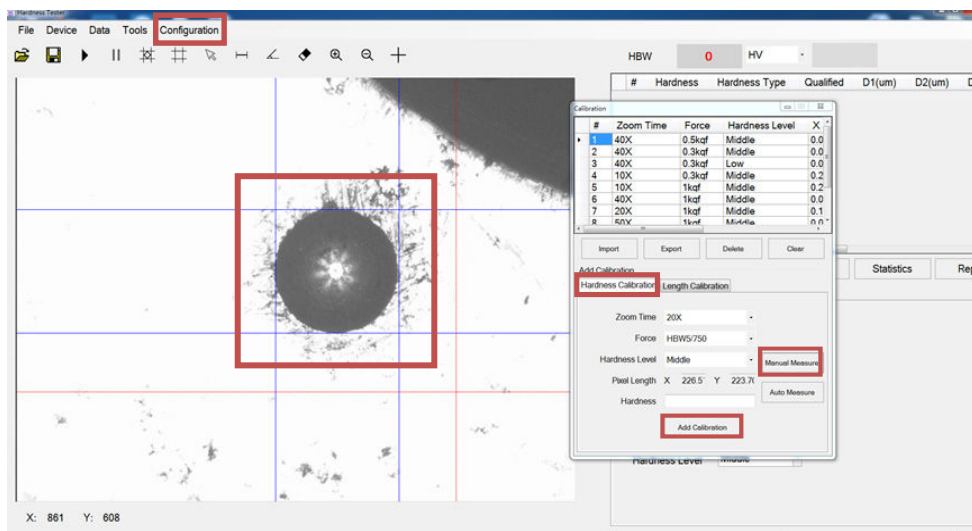
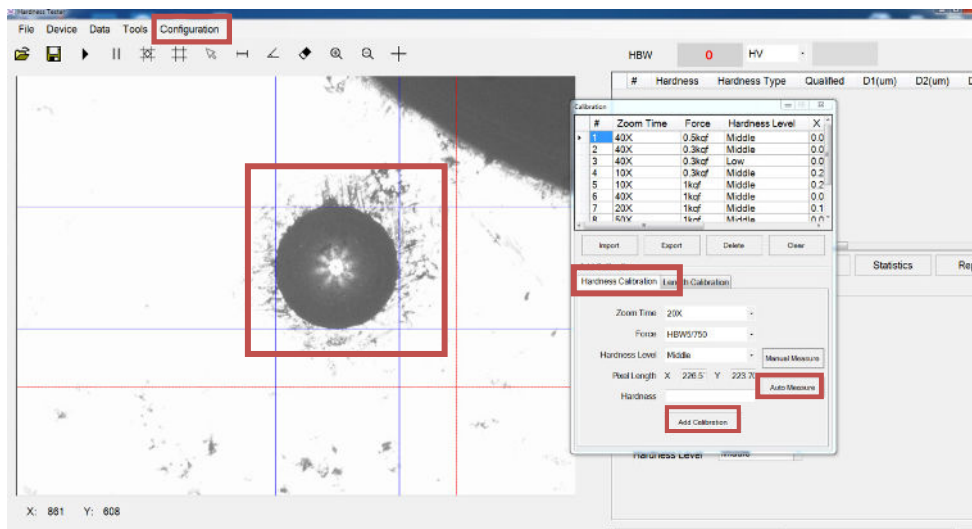
4. Image real-time browsing and screenshot save

▲ Connect the USB camera → open the measurement software → Click the "▶" button on main interface to enter the real-time browsing state → Click the "💾" button on the main interface → Select the location and name to save → Save the current live image as a local image.




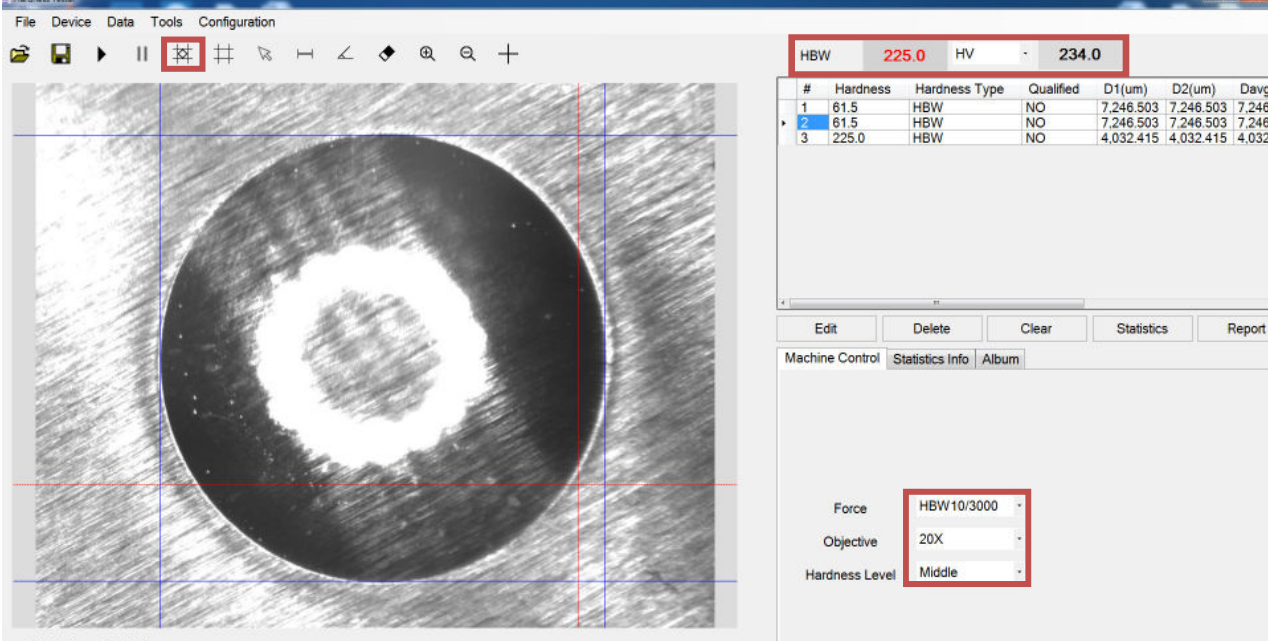
5. Indentation Measurement Calibration Function

▲ Click the "Configuration-Calibration" button on the main interface to open the calibration interface → Select the calibration method as "hardness" → When the hardness scale already exists, You can click on the calibration interface in the "Auto Measure" button to calibrate; When the hardness scale does not exist, you must click on the "Manual Measure" button on the main interface to calibrate → draw the measurement line manually in the image display area of the main interface → Enter the hardness value in the calibration interface → Click the "Add Calibration" button in the calibration screen → Click the "Close" button in the calibration interface.



6.About Automatic Measurement Function

▲ Find a clear Brinell indentation → Select the scale and hardness level on the main interface → Select the scale conversion type on the main interface → Select the objective on the main interface → Click on the main interface of the "  " button or press the metal button on the measuring tube, the software automatically capture the indentation to measure.(During the automatic measurement must ensure that the image screen stability, indentation edge clear. Can be adjusted by adjusting the device focal length and camera parameters to achieve. It is necessary to ensure that the selected scale and hardness level have been calibrated before automatic measurement.)

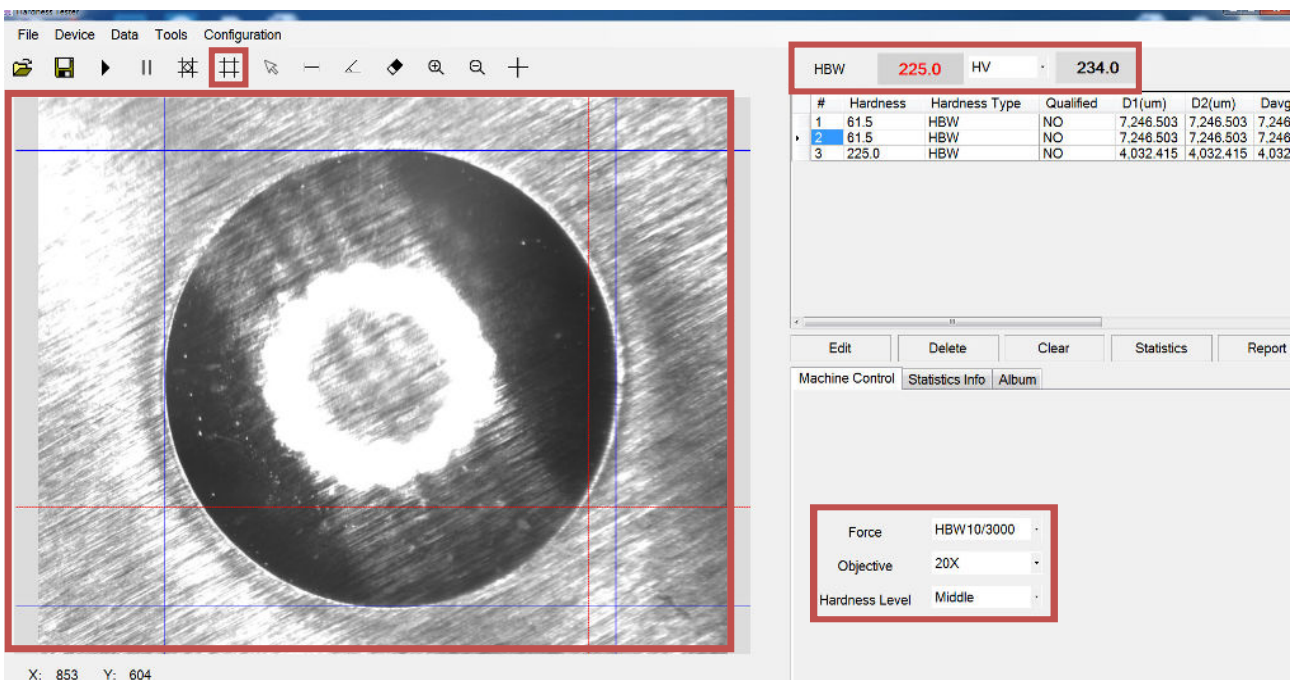


#	Hardness	Hardness Type	Qualified	D1(um)	D2(um)	Davg
1	61.5	HBW	NO	7,246.503	7,246.503	7,246
2	61.5	HBW	NO	7,246.503	7,246.503	7,246
3	225.0	HBW	NO	4,032.415	4,032.415	4,032

Force: HBW10/3000
Objective: 20X
Hardness Level: Middle

7.About Manual Measurement Function

Find a clear Brinell indentation → Select the scale and hardness level on the main interface → Select the scale conversion type on the main interface → Select the objective on the main interface → Click the " " button on the main interface → In the image display area click 4 times to draw up,down,right and left about 4 and indentation edge tangent straight line.



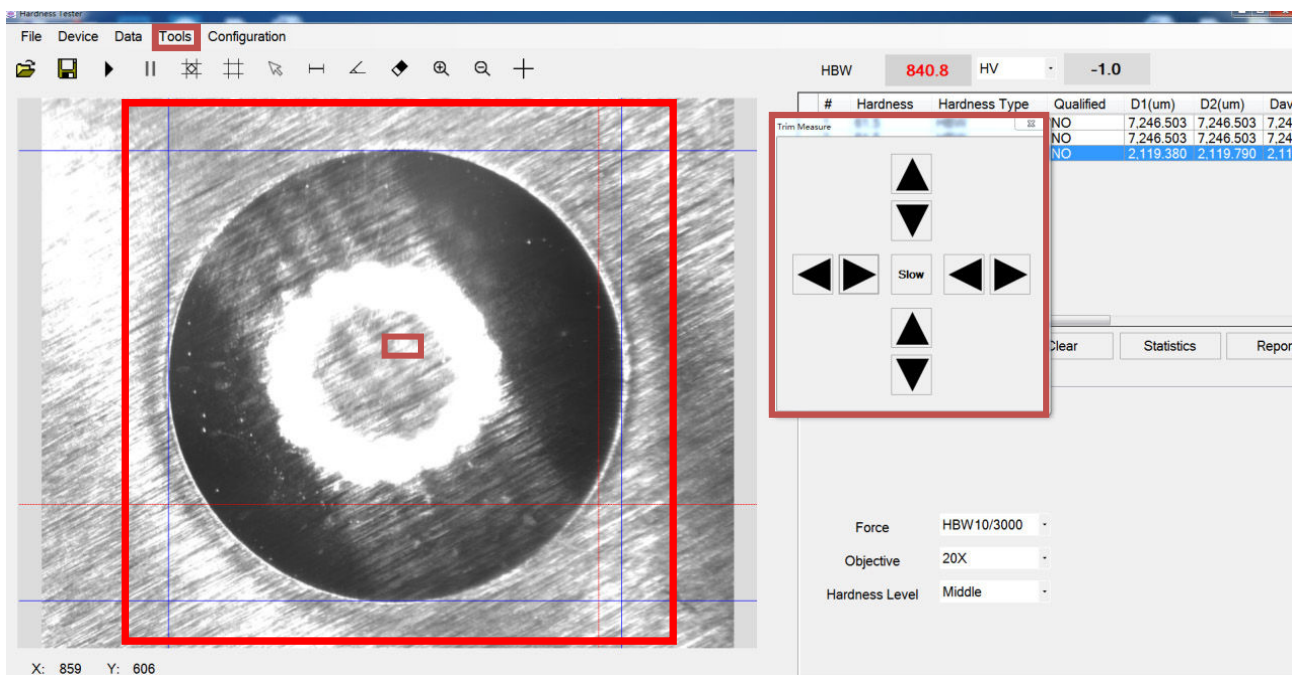
The screenshot shows a software interface for manual measurement. The main window displays a grayscale image of a circular Brinell indentation on a textured surface. A red grid is overlaid on the image, with a red box highlighting the indentation. The software displays a table of measurement results, including hardness values (HBW, HV) and dimensions (D1, D2, Davg). The current hardness value is 225.0 HBW, which is converted to 234.0 HV. The force is set to HBW10/3000, the objective is 20X, and the hardness level is Middle.

#	Hardness	Hardness Type	Qualified	D1(um)	D2(um)	Davg
1	61.5	HBW	NO	7.246.503	7.246.503	7.246
2	61.5	HBW	NO	7.246.503	7.246.503	7.246
3	225.0	HBW	NO	4.032.415	4.032.415	4.032

Force: HBW10/3000
Objective: 20X
Hardness Level: Middle

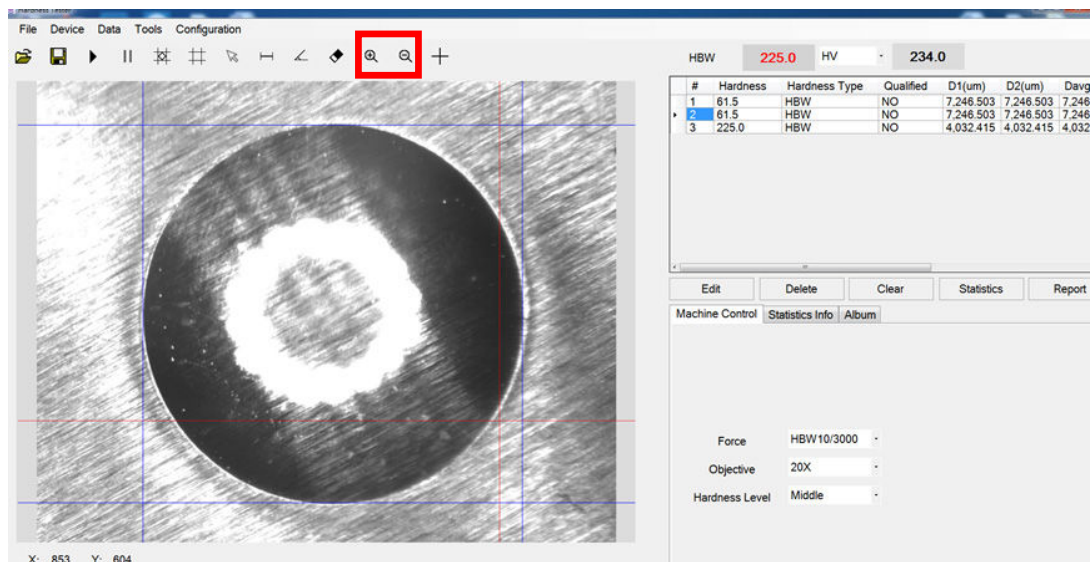
8.About Manual Fine Tuningfunction

When the automatic measurement of card line error,You can click on the main interface of the "Tools-Trim Measure" button to adjust. When the manual measurement error, you can select the measurement line to adjust the position (select the measurement line will turn yellow, drag the yellow measurement line to change the position of the measurement line to adjust the hardness value).



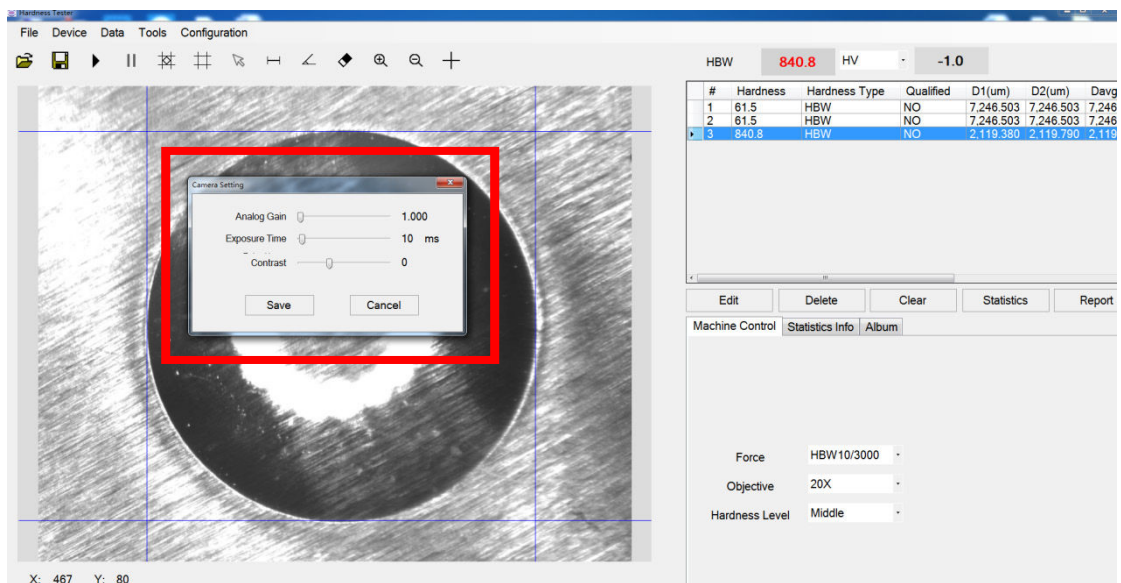
9. About Image Magnification Function

In the real-time browsing state, the indentation is too small to measure, the main interface of the magnification switch, the image is enlarged of the original. (Can not zoom in static images, must be in real-time browsing state to zoom in)



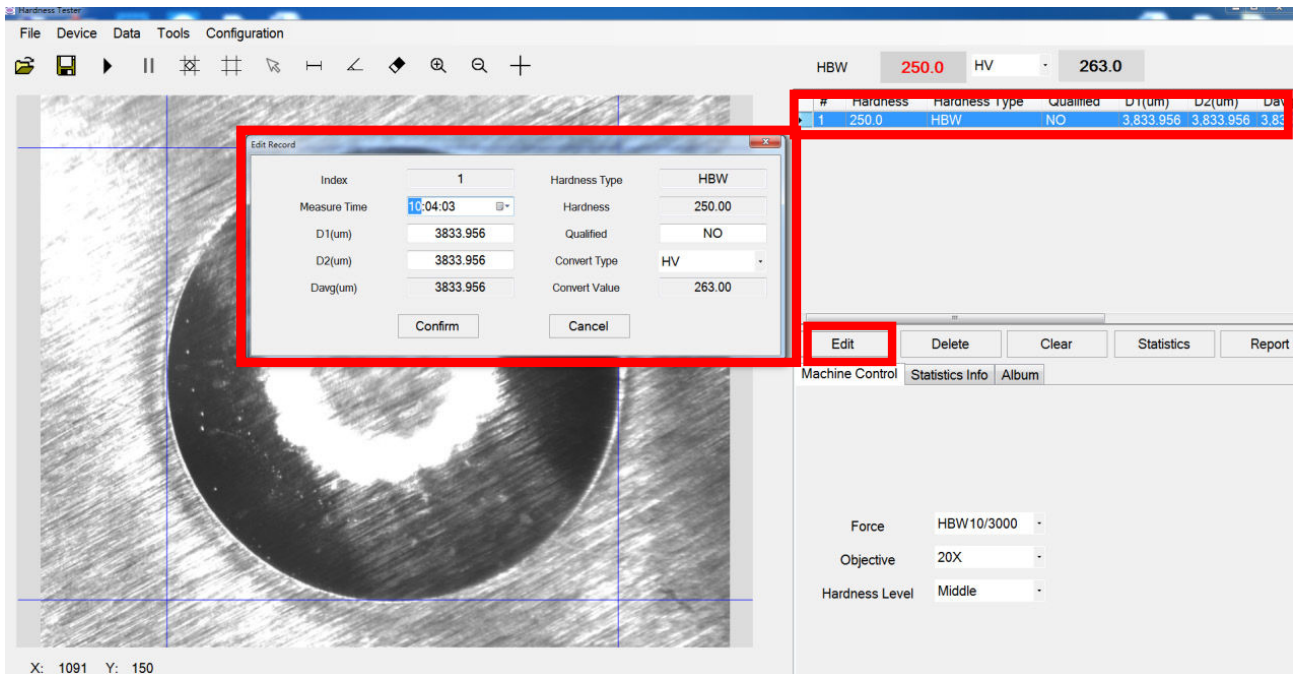
10. Real-Time Adjustment Of Camera Parameters

In the real-time browsing state, click on the main interface of the "Configuration-Camera Setting" button to enter the settings interface for camera parameter adjustment. You can also save the camera parameters to disk for later calls.

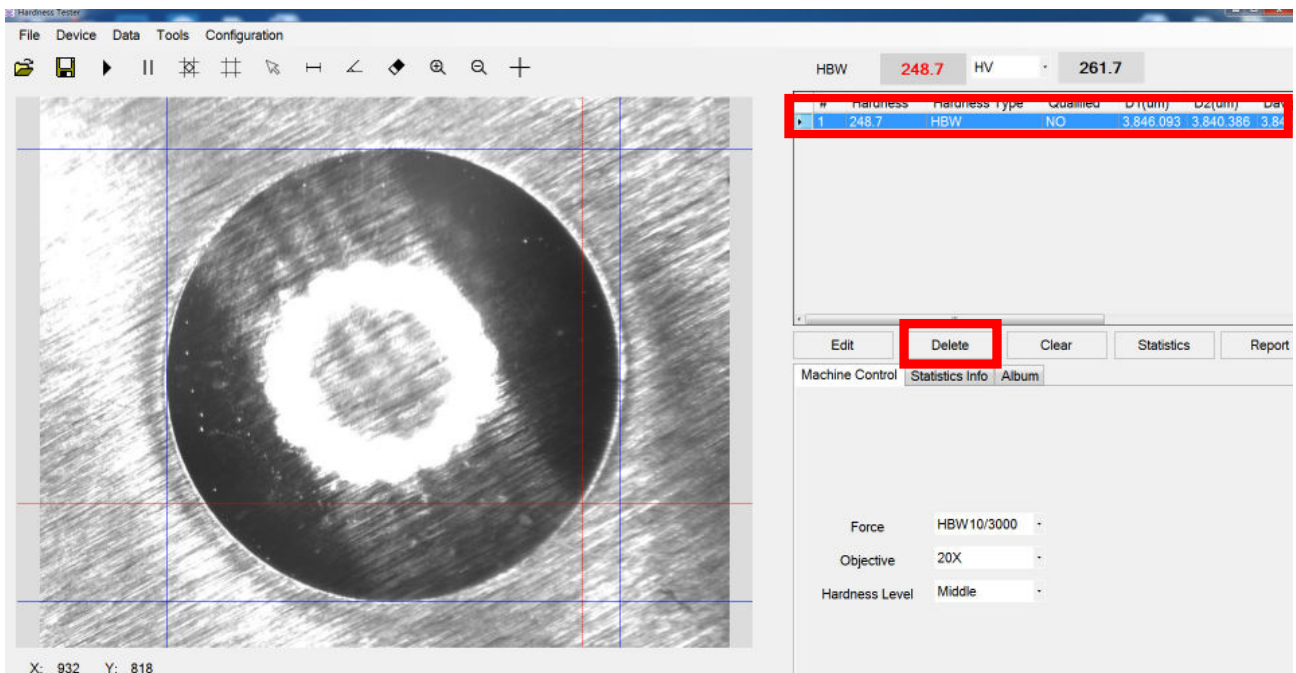


11.Measurement Data Edit Manage Functions

▲Select the measurement data → click on the "Edit" button to edit the information.

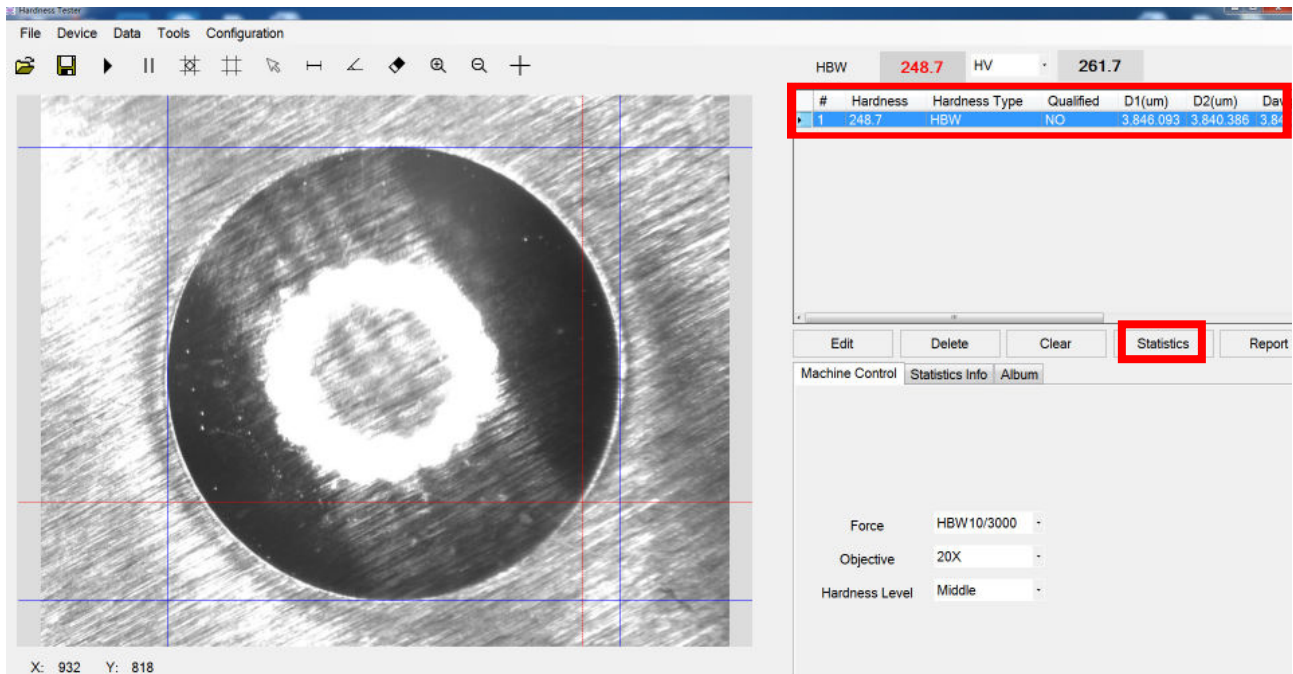


▲Select the measurement data → click the "Delete" button to delete the selected information (click "Clear" button, will delete all the data).



11.Measurement Data Edit Manage Functions

▲ Click the "Statistics" button to display the statistics of the measurement data.

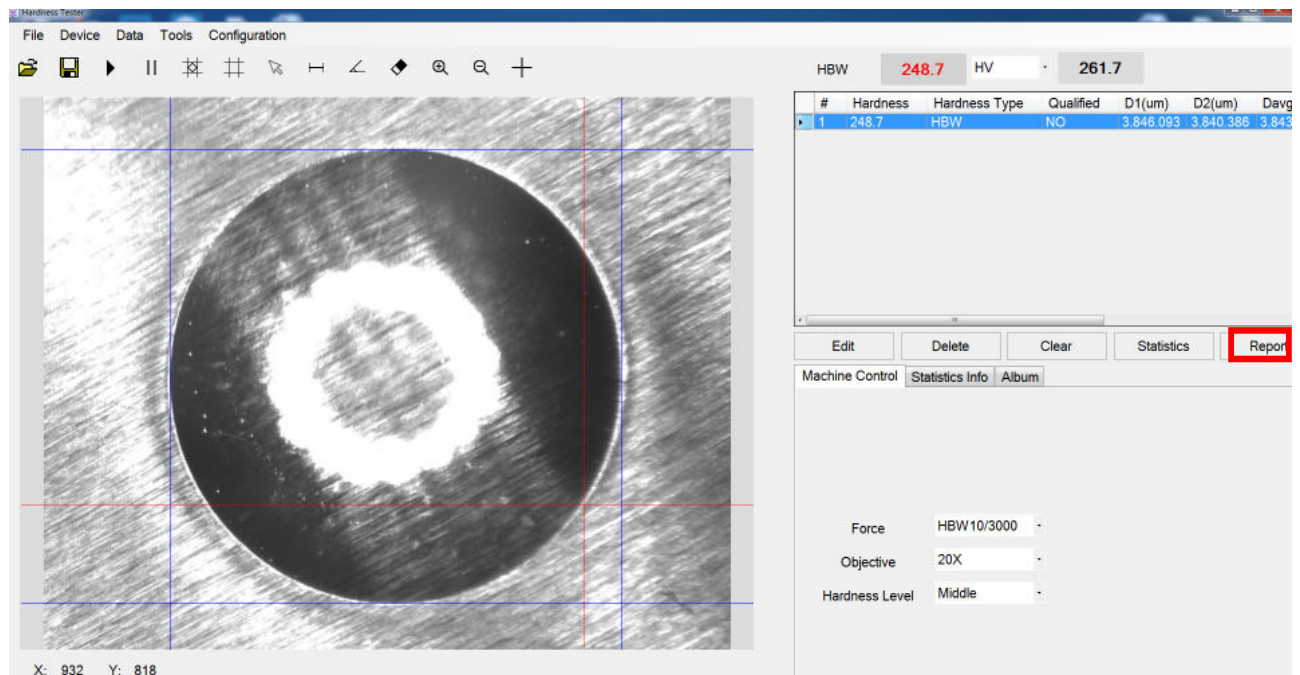


The screenshot shows the 'Hardness Tester' software interface. On the left is a grayscale image of a circular indentation on a metal surface, overlaid with a blue grid. The right side of the interface contains a data table and control buttons. The table has the following data:

#	Hardness	Hardness Type	Qualified	D1(um)	D2(um)	Davg
1	248.7	HBW	NO	3.846.093	3.840.386	3.843.240

Below the table are buttons for 'Edit', 'Delete', 'Clear', 'Statistics', and 'Report'. The 'Statistics' button is highlighted with a red box. Below the buttons are tabs for 'Machine Control', 'Statistics Info', and 'Album'. At the bottom, there are dropdown menus for 'Force' (set to HBW10/3000), 'Objective' (set to 20X), and 'Hardness Level' (set to Middle). The status bar at the bottom left shows 'X: 932 Y: 818'.

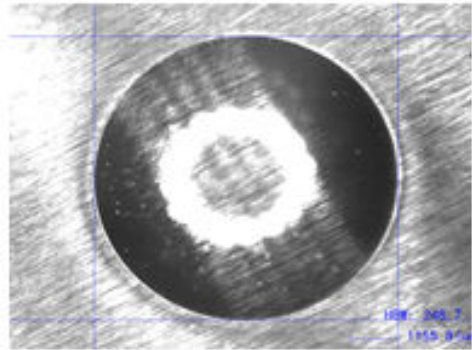
▲ Click the "Report" button to export the measurement data to a Word document.



This screenshot is identical to the one above, showing the same software interface. In this view, the 'Report' button is highlighted with a red box, indicating the next step in the process.

11.Measurement Data Edit Manage Functions


Report

Sample Name.,	Sample Name.,	Sample Sn.,	Sample Sn.,						
Min Value.,	300.0.,	Max Value.,	800.0.,						
Inspection Company.,	Inspection Company.,	Inspection Date.,	2020-12-30.,						
Tester.,	Tester.,	Reviewer.,	Reviewer.,						
Force.,	HBW10/3000.,	Load Time (s) .,	10.,						
.									
Statistical data.,									
NO.,	MAX.,	MIN.,	AVE.,	VAR.,	STD.,	Cp.,	Cpk.,		
1.,	248.74.,	248.74.,	248.74.,	0.00.,	0.00.,	INF.,	INF.,		
.									
Detailed data.,									
#.,	D1(um).,	D2(um).,	Davg(um).,	Hardness type.,	Hardness value.,	Conv et type.,	Conv et value.,	Qualifi ed.,	Depth.,
1.,	3846.0 9.,	3840.3 9.,	3843.24.,	HBW.,	248.7.,	HV.,	261.7.,	NO.,	0.000.,
.									
#.,	Pictures.,			#.,	Pictures.,				
1.,				1.,					

Click the "Print" button to print the current measurement data from the serial printer.

12.About Software Installation

Camera driver installation

1.Install camera drive  Galaxy_Windows_CN_32bits-64bits_1.11.2010.9171


Double-click " Galaxy_Windows_CN_32bits-64bits_1.11.2010.9171.exe" in the folder and click the "Execute" button to install the Installer.

(For desktop computers, it is recommended to connect the camera with the USB port on the back of the host.)

Install the .Net Framework 3.5 Runtime Environment

Install the Net Framework 3.5 runtime environment (Some computers already have this environment attached to them when they install the system, so you don't need to install it).

Hardness meter software installation

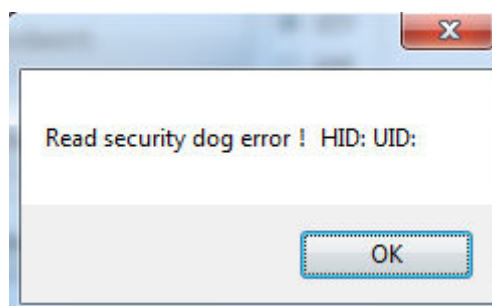
Copy the folder where the software is to the root directory of Disk D and find the folder  AIO_Client File right - click to send to desktop shortcut.

Dongle configuration

The dongle has a hardware ID and a software ID.

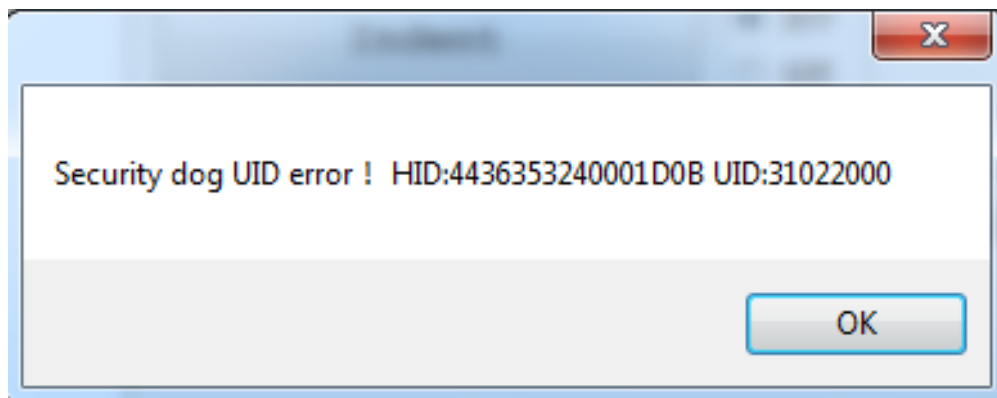
Each dongle's hardware ID is unique, and the software ID matches the corresponding software type.

When the software is launched, if the dongle is not plugged in, the following prompt will appear.



12.About Software Installation

If the following prompt appears after the software starts, it indicates that the software ID does not match, indicating that the software you are currently using is not of the same type as the current encrypted dog (e.g., Vickers software cannot use Brinell encrypted dog).At this point, you need to purchase the corresponding type of dongle from the manufacturer.



When the software starts, if the following prompt message appears, then the dongle expires. At this point you need to contact the manufacturer to do the dongle extension service, the manufacturer will give you the extension software, follow the steps to execute.

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