Mikrosize®

uVision-PB

Portable Brinell Hardness Testing System

Video

Contact us

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Product Features and Application

Product Features

● Portability design: The system features a compact and exquisite structural design. It is easy to install and has an intuitive operation, fully meeting the convenient usage requirements in mobile scenarios.

● Professional optical system: By precise optical imaging technology, it can clearly present the contour of the Brinell indentation image, ensuring the accuracy of the measurement .

● Intelligent Image Analysis: By integrating three algorithms of shape recognition, brightness analysis, and edge computing, the accuracy of measurement results is significantly enhanced.

● Standard sample part testing supports both manual and automatic measurement: It is equipped with a one - click automatic measurement function, which simplifies the operation process and enables non - professionals to get started quickly. Manual measurement and adjustment are also supported.

● The brightness, contrast, and lighting system are adjustable. Parameters can be saved separately and input according to different sample surfaces.

● Multi - scenario applicability: Compatible with both laboratory - level precision inspection and rapid quality inspection in industrial sites.

● Hardness conversion: Automatically conduct conversions among various hardness scales such as Brinell, Rockwell, and Vickers.

● Real - time display of hardness indentation images, with the ability to store and print the images.

● Automatically record measuring data. Reports can be generated according to user - customized requirements and are supported in multiple formats.

Product Application

● Industrial Manufacturing and On - site Quality Control
It is applicable to scenarios such as foundries, forging workshops, and machining factories. It can quickly test the hardness of materials like cast iron, steel, non - ferrous metals, and alloys.

● Laboratory Material Research and Standardized Testing
It is used in scenarios such as hardness comparison experiments of metal materials and R & D testing of new alloys.

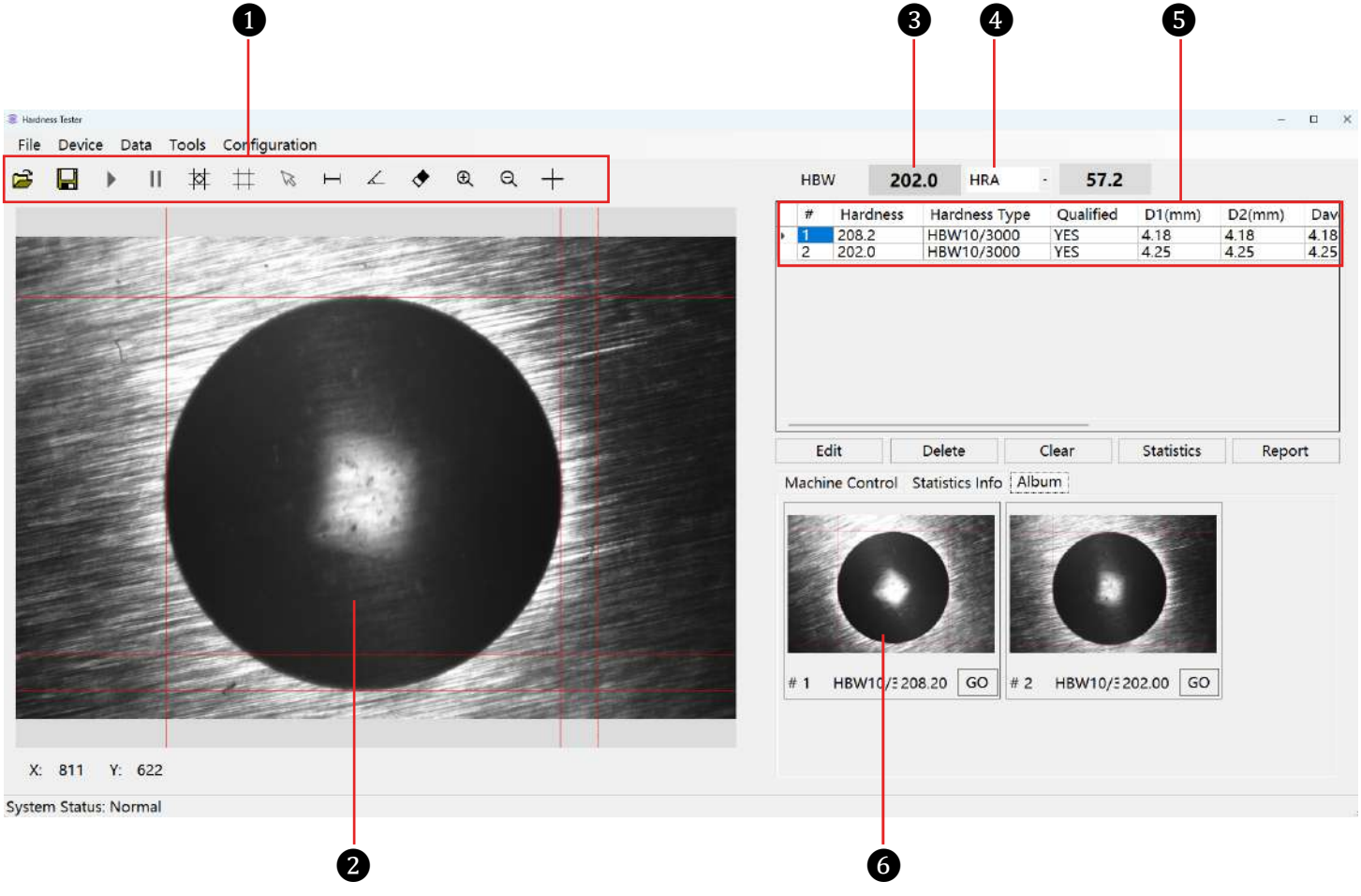
● Inspection of Large - scale Workpieces and Infrastructure
Particularly suitable for in - situ inspection of large - scale castings and forgings, pipelines, and pressure vessels in scenarios such as power plants and steel mills.

Product Structure

Measuring Button

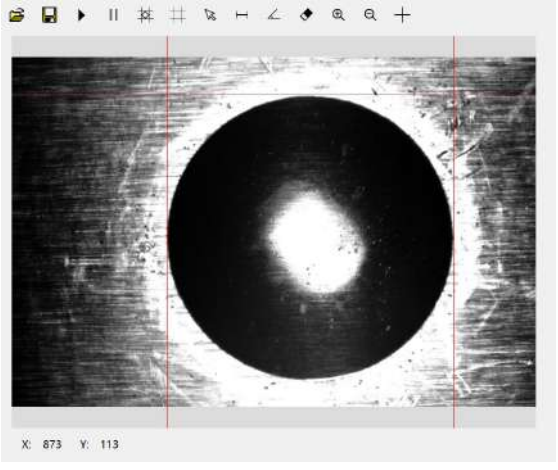
1.RS232
2.Measuring Button

Software Main Interface

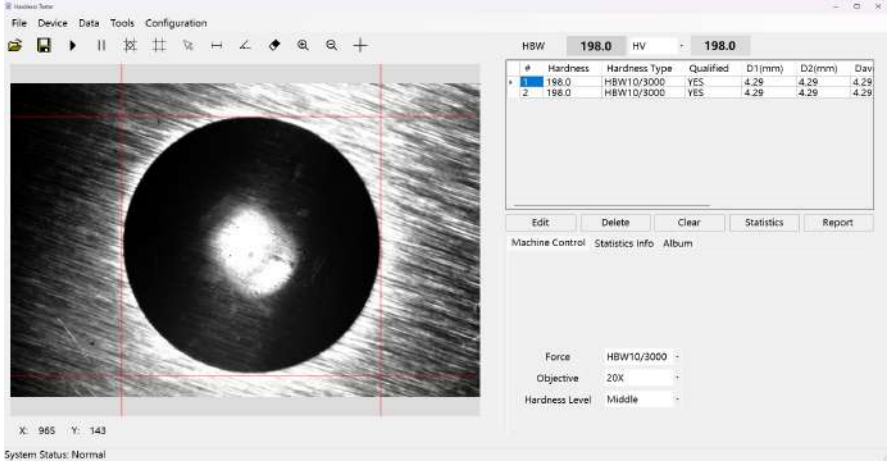


1.Toolbar 2.Indentation 3.Brinell hardness value 4.Conversion scale
5.Data list 6.Album pictures

Indentation Measuring



Manual Measuring



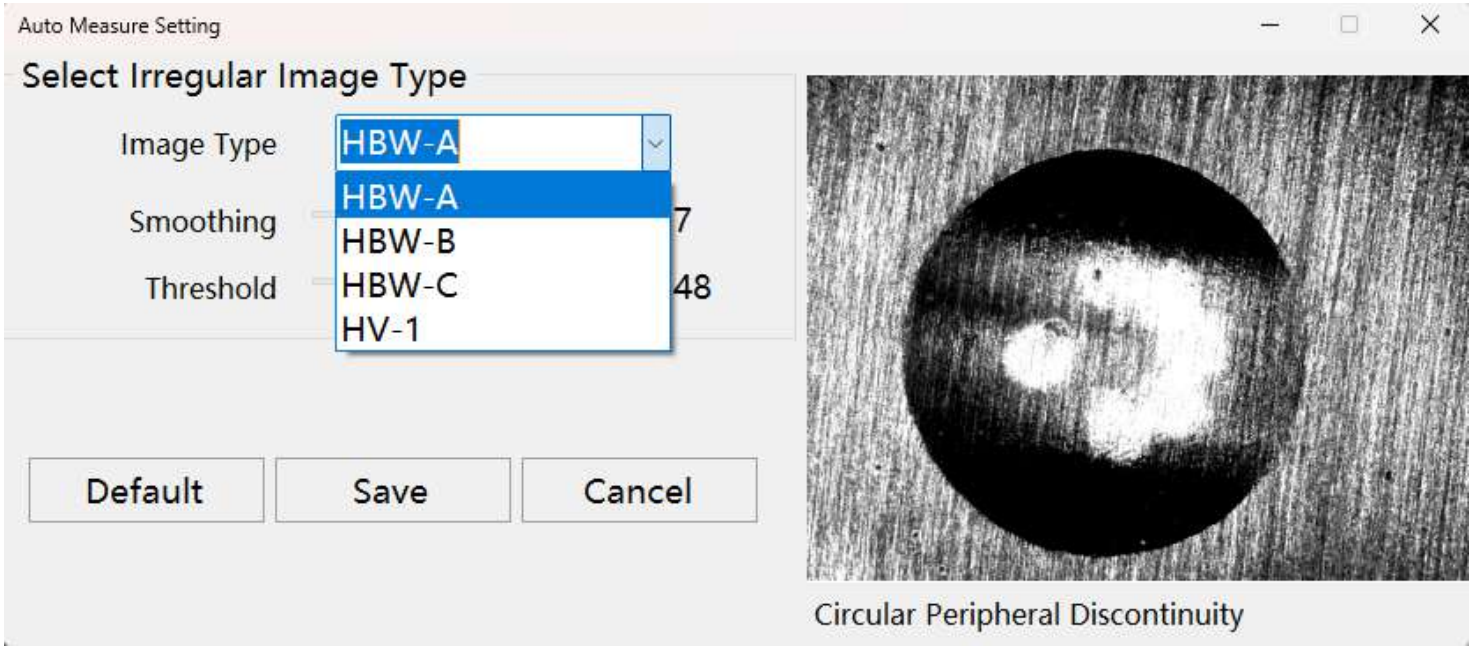
Auto Measuring

Two methods for indentation measurement in this software: automatic measurement and manual measurement.

Automatic Measurement: Ensure that the indentation image is clear. Click "Automatic Measurement" on the top, and the measurement results will be automatically displayed on the right side of the software.

Manual Measurement: Click "Manual Measurement" on the top. Then, mark the edges of the indentation in the order of left, right, top, and bottom. After that, the measurement results will be shown on the right side of the software.

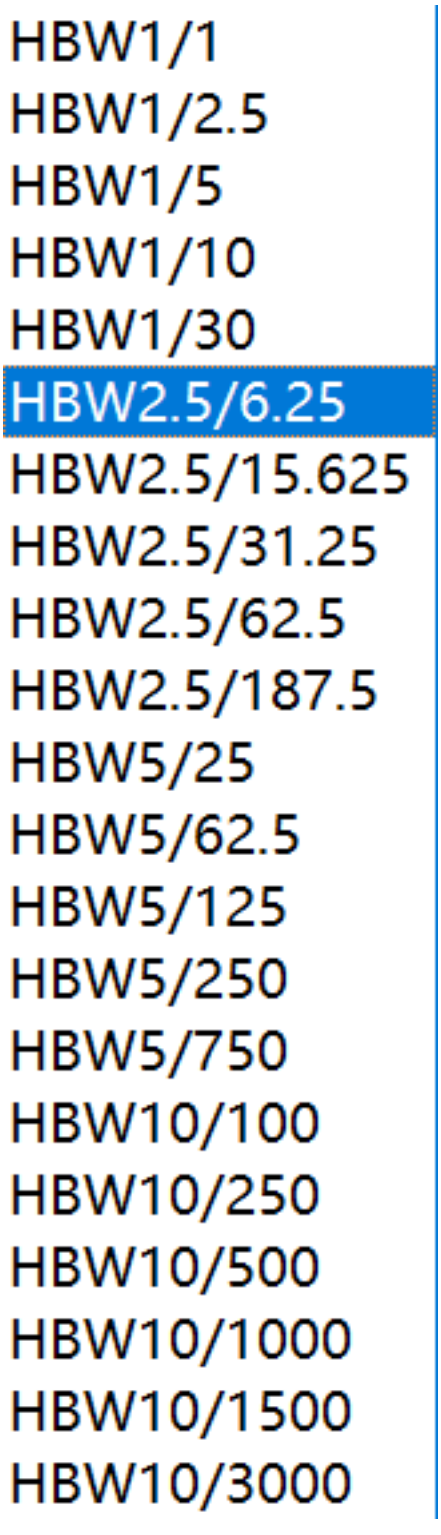
Select Image Type



Indentation Image Type

For automatic measurement, you need to select an appropriate image type that is consistent with the type of the indentation image to be measured.

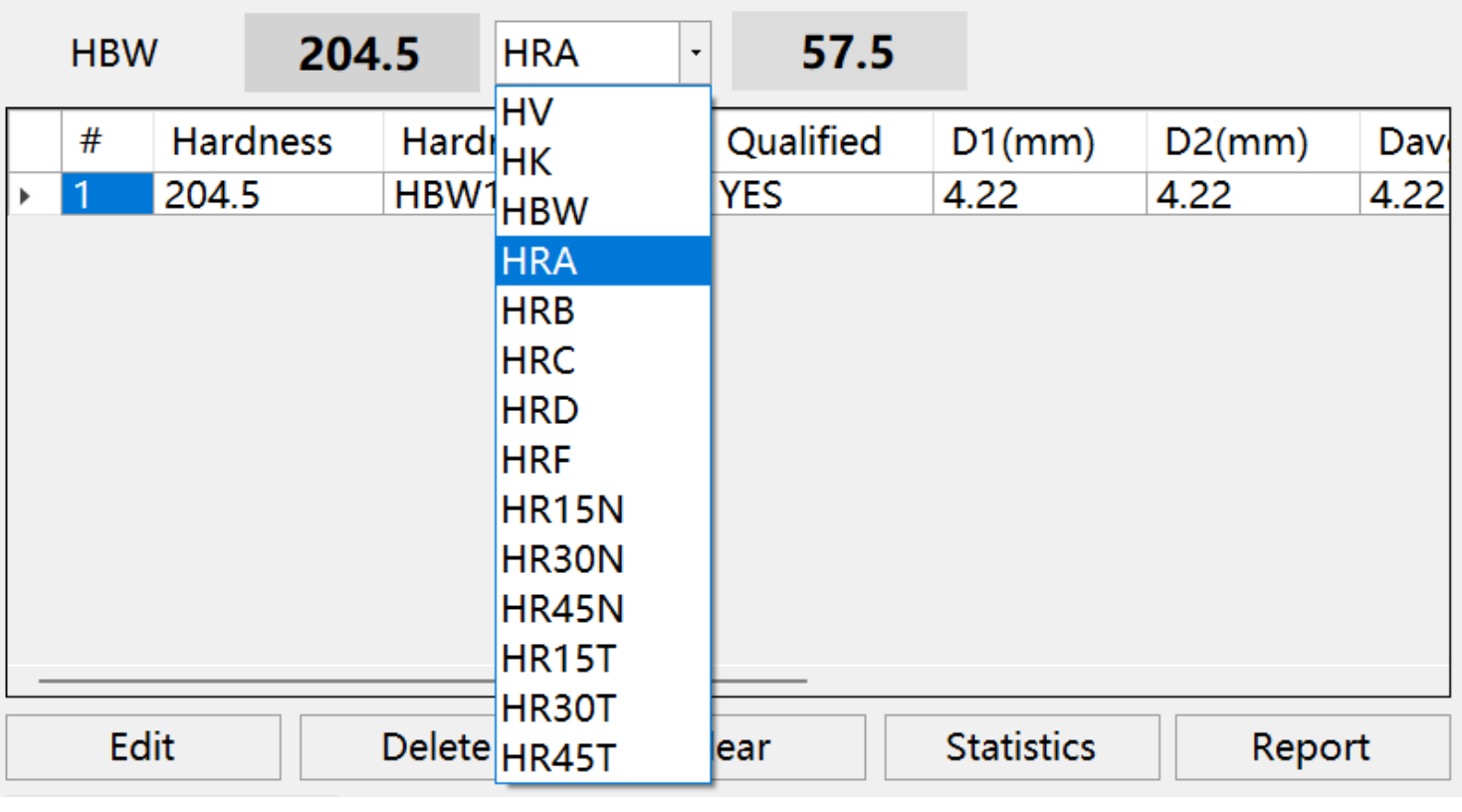
Brinell Scale Selection



Brinell Scales

The selection of the brinell scales should be consistent with the scale used in the test.
This software supports most common Brinell hardness scales, with a total of 21 types.

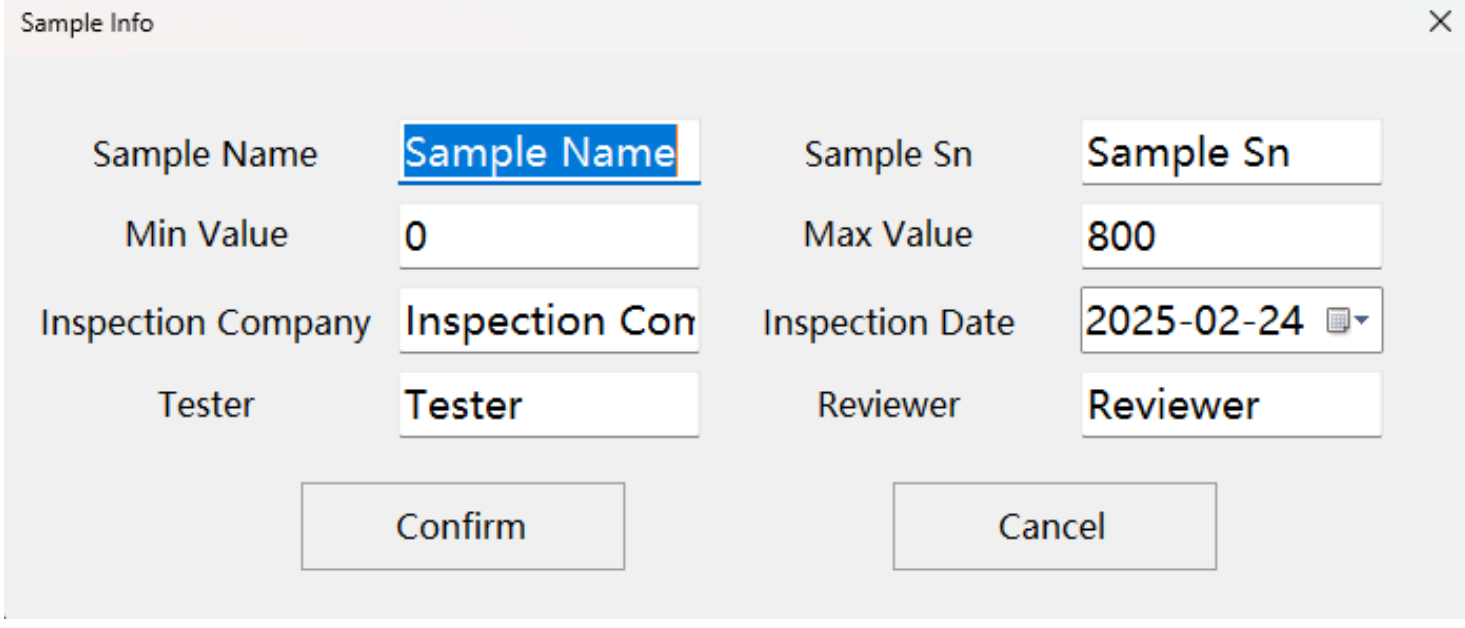
Conversion Scale



Conversion Scales

This software supports conversion between common Brinell, Rockwell, Vickers, and Knoop scales.

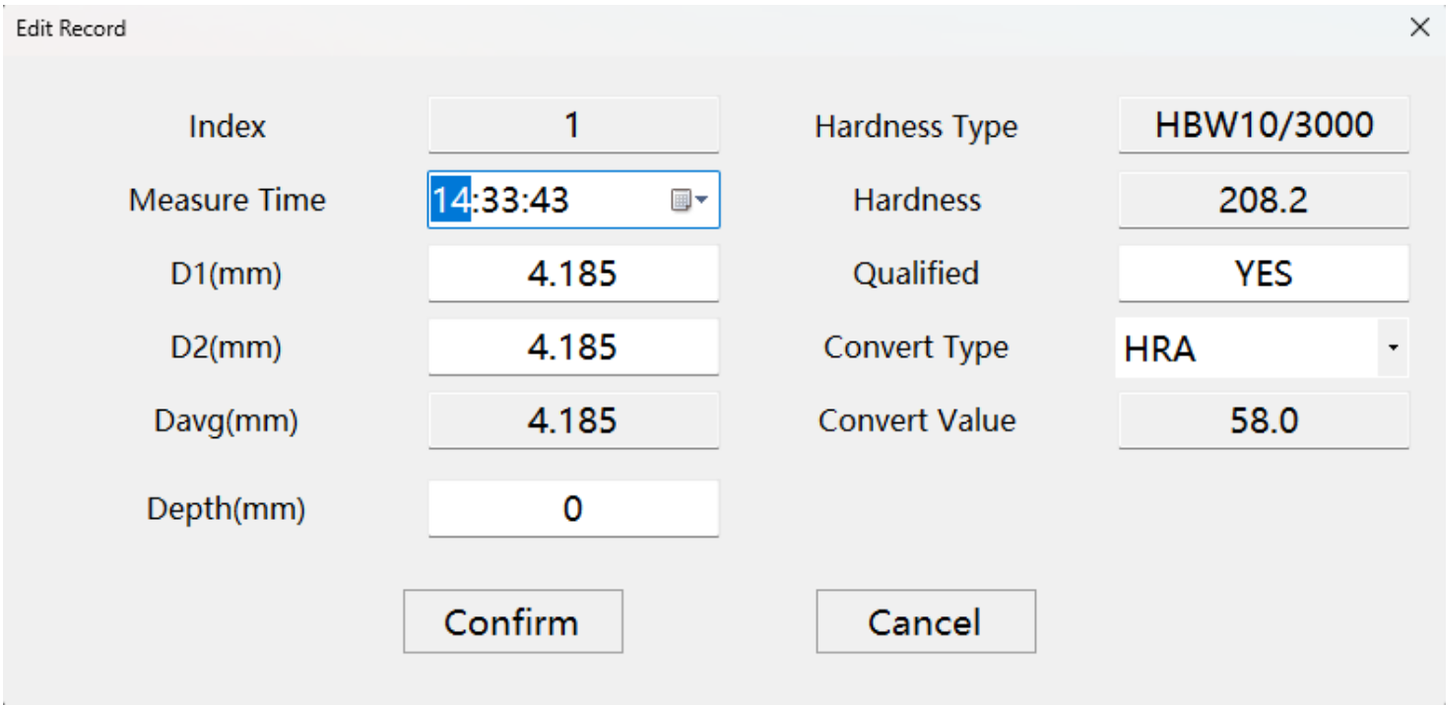
Sample Information Editing



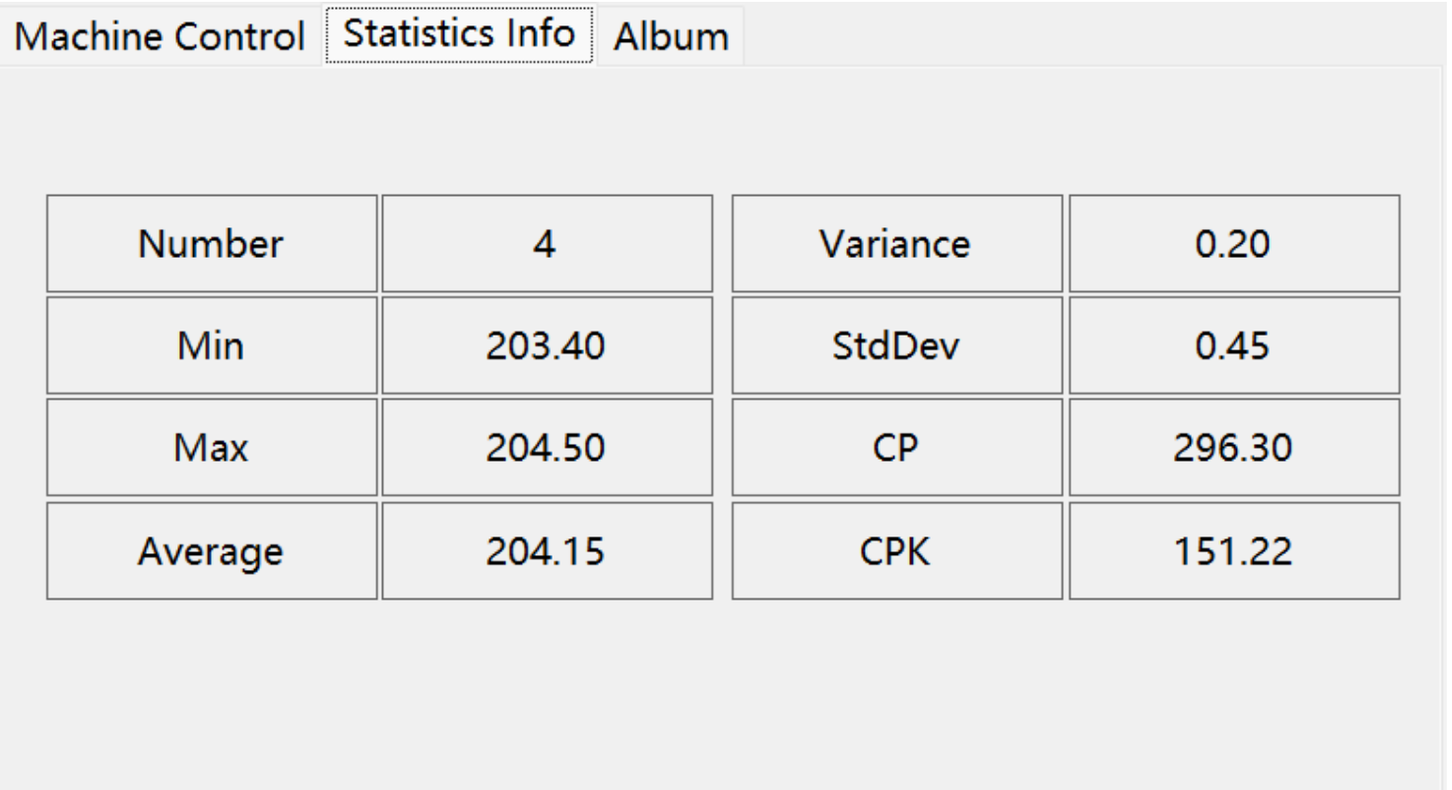
Sample Information

Users can edit the information of the tested samples, including the sample name, hardness range, tester, test date, etc. This facilitates subsequent management and querying.

Data Processing



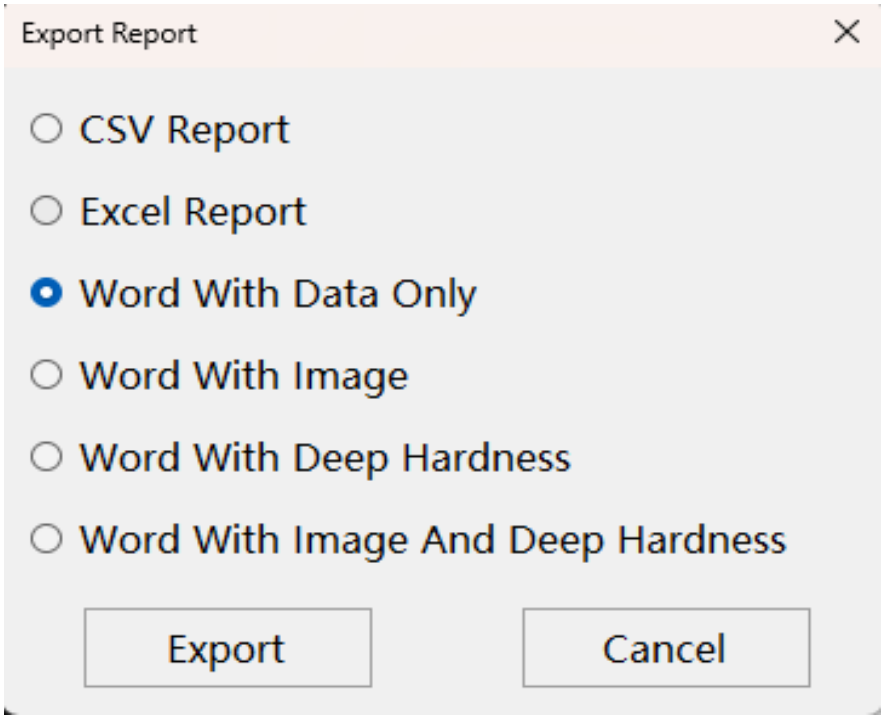
Data Editing



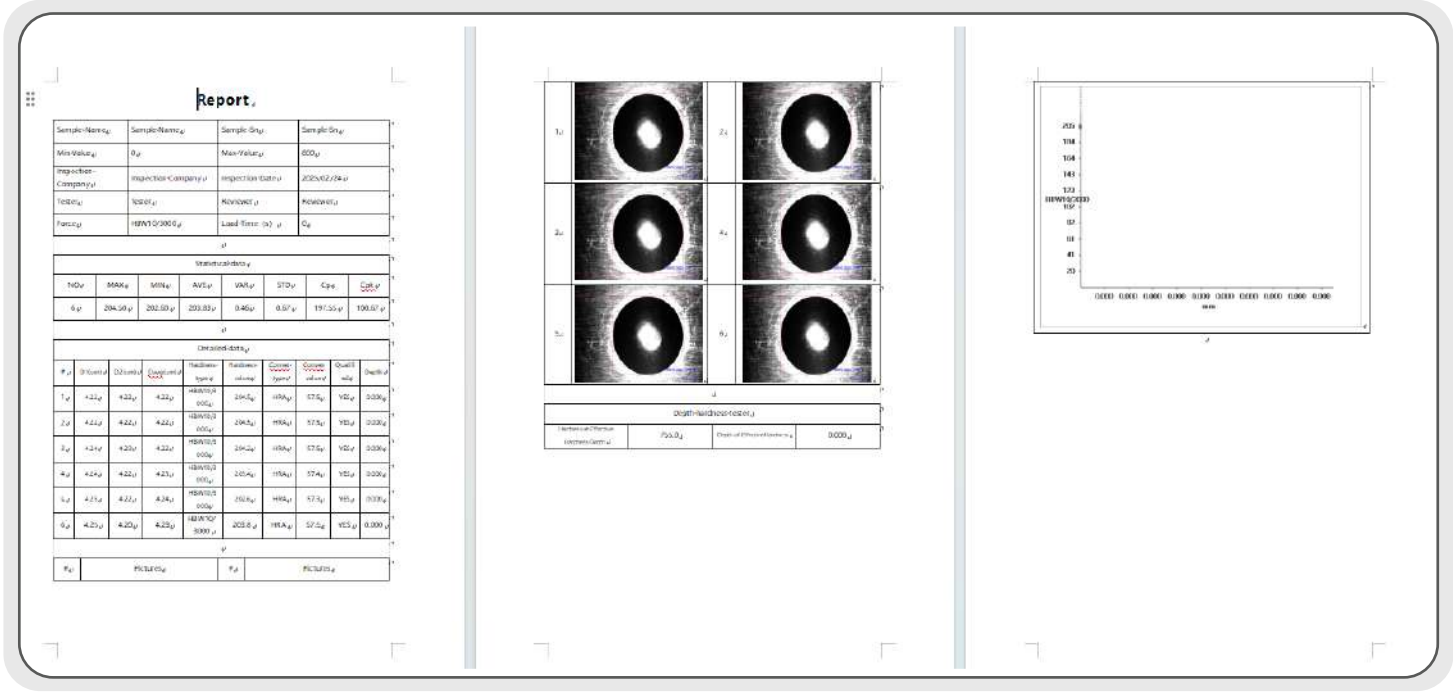
Data Statistics

Select a specific measurement record to edit and modify the measurement result.
For the results of multiple tests, click the "Statistics Info" button, and the software will calculate the maximum value, minimum value, average value, and standard variance of the data.

Report Output



Report Format



Report

This software supports multiple report export formats, including Word, Excel, and CSV.

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Report Output

Model	uVision-PB
Application Brinell indentor	1mm/2.5mm/5mm/10mm
Brinell Hardness Scale	HBW1/1、HBW1/2.5、HBW1/5、HBW1/10、HBW1/30、HBW2.5/6.25、HBW2.5/15.625、HBW2.5/31.25、HBW2.5/62.5、HBW2.5/187.5、HBW5/25、HBW5/62.5、HBW5/125、HBW5/250、HBW5/750、HBW10/100、HBW10/250、HBW10/500、HBW10/1000、HBW10/1500、HBW10/3000
Executive Standards	BSEN 6506、IS0 6506、ASTM E10、GB/T 231
Measuring Range	15.9-650HBW(ASTM E10 Recommended Effective Hardness Value)
Indention Diameter Range	0.6-6mm
Measurement Resolution	0.0001 mm
Hardness Resolution	0.1 HBW
Digital Imaging	6.3 Mega Pixel Industrial-grade Digital Camera
Measuring Way	Manual And Automatic Measurement (For Standard Samples)
Calibration Method	Standard Hardness Block/length Scale
Support Language	English (Optional Other Languages)
Power Supply	USB Power Supply
Dimension	170x54x54mm
Weight	500g

Standard Delivery

Item	Qty	
Portable Measuring Head	1 set	
USB Flash Drive (Software Included)	1 pc	
Brinell Hardness Block HB10/3000	1 pc	
Dongle	1 pc	
Instruction Manual	1 copy	
Warranty Card	1 copy	
Product Certifcate	1 copy	