MS–1
BRINELL INDENTATION MEASUREMENT SYSTEM

1. Hardware requirements:

CPU: Basic frequency >2G (recommend)

Internal storage： Capacity >2G (recommend)

2. Systemrequirements:

Windows XP sp3 or windows7, Windows8 ,Windows10

3. Installation:

Double click the "Indentation Measuring System.exe" (As shown in figure 1）

Figure 1: Installation Document

Go to next step you will see the installation interface as shown in figure 2.
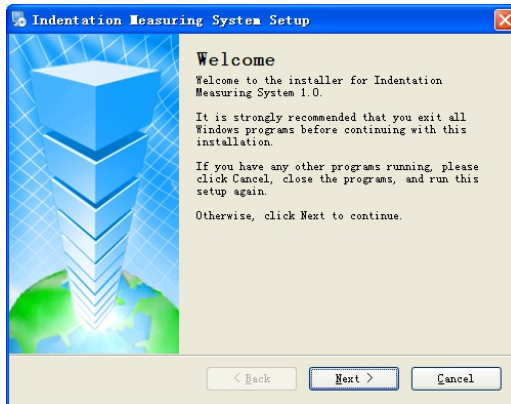

Figure 2: Installation Interface

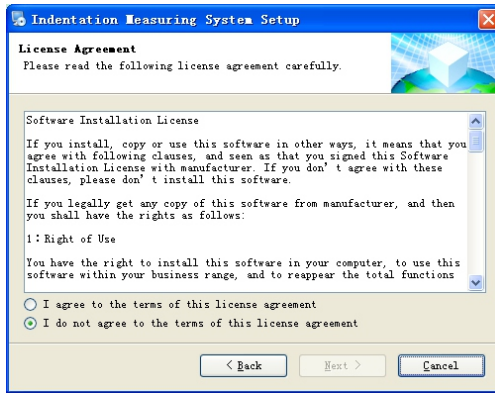And then go to next step you will see figure 3 installation interface.

Figure 3: Installation Interface

Agree with the License Agreement, and always next step until there is a icon of IndentationMeasurement System (as shown in figure 4). Installation finish.

Figure 4: Installed exe. File

4. Operation Method:

First to insert the soft dongle and camera, and then double click the shortcut of "Indentation Measuring System.exe" to enter into this system.(as shown in figure 5)
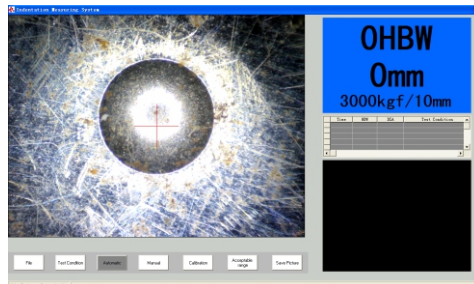

Figure 5: Software running interface

4.1 Measurement

4.1.1 Automatic Measurement:

If the "Automatic" button is in gray color (as shown in figure 5), the machine is under automatic measurement condition now. Otherwise, click this button to enter into Automatic measurement status. Using the camera aims to the indentation (move the reticle near the aperture of the image), and then press the red button on the camera, you will see the diameter of the indentation and the hardness value automatically on the right side of the screen (as shown in figure 6). (Attention: Pay more attention to the diameter of indenter you choose, wrong choice will influence the hardness value.)
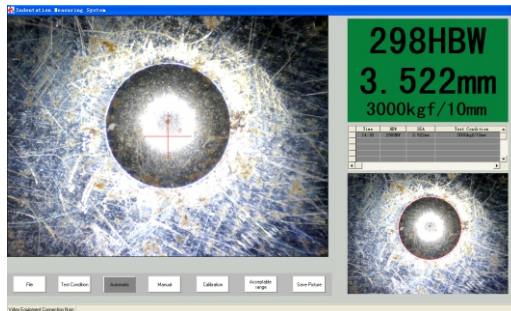

Figure 6: Automatic measurement result

4.1.2 Manual Measurement:

If "manual" button shows "three points" or "four lines", it is in manual measurement condition. If not, click "manual" button, choose "three points" or "four lines" in submenu to enter into it. Under "manual" condition, first press the red button on the camera, the video will convert into an image. Mark three points or four lines on the image, the diameter of the indentation and measurement value will show automatically on the right of software. After finishing one time measurement, press the red button again to back to next testing. (As shown in figure 7 and figure 8)
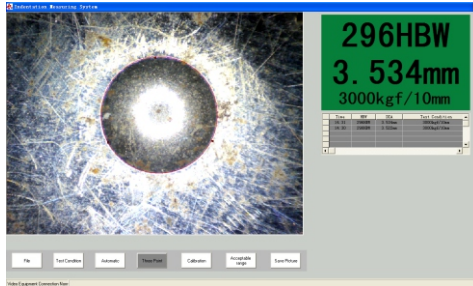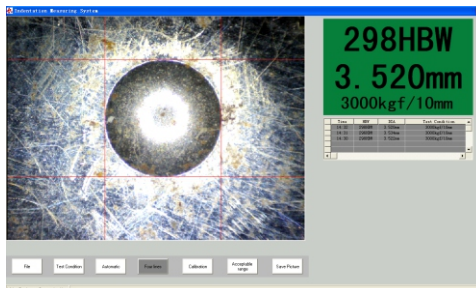
Figure 7: three points testing

Figure 8: Four lines testing

4.2 Calibration

Click "calibration" button, the condition for both the diameter of the indentation and measurement value will change into gray color on the right of software. Changing the diameter of indentation or the hardness value can realize calibrate function. After calibration, click "finish" button. (As shown in figure 9) (Please calibrate the software before first time use.)
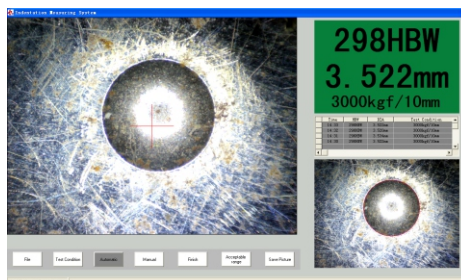

Figure 9: Calibration Interface

4.3 Acceptable range

The acceptable range can be set by user: If within acceptable range, the hardness value in green color(as shown in figure 10); If exceed it, in red color(as shown in figure 11); If not set acceptable range, the default value is in blue color(as shown in figure 12).

Setting method: click "acceptable range" button, fill into upper limit of acceptable range; and fill into lower limit of acceptable range; click "acceptable range" button again to finish setting.
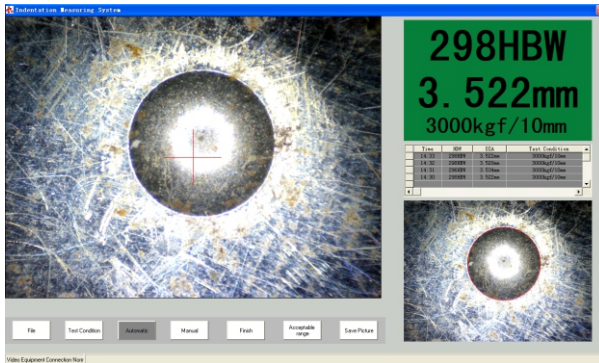

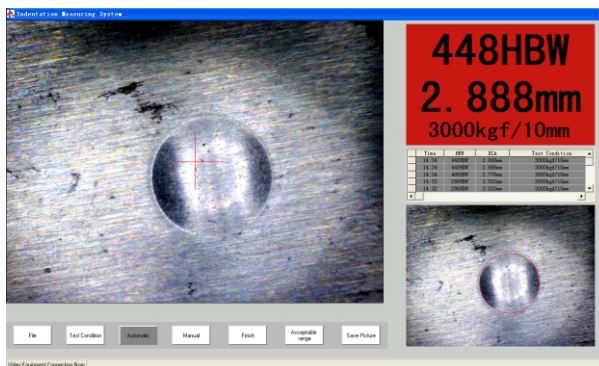Figure 10: within acceptable range in green
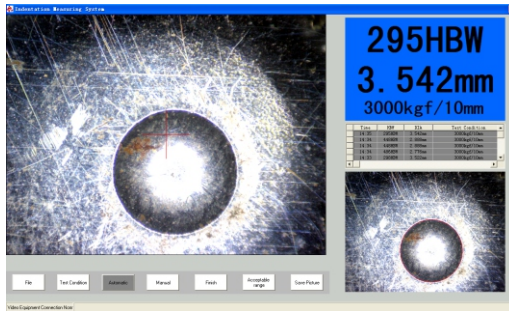

Figure 11: out of acceptable range in red

Figure 12: no acceptable range set in blue

4.4 Storage

It can store the testing value in the history data folder according to testing date. Please install excel or wps in your computer in advance. (As shown in figure 13)
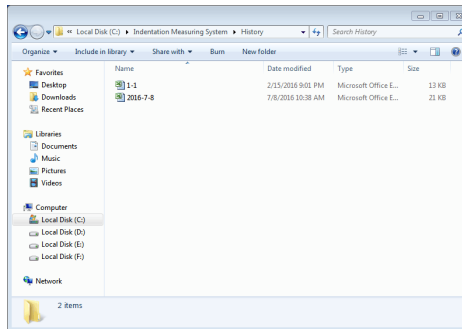

Figure 13: storage of testing result

4.5 Save picture

If the image cannot be identified by this software, please click "save picture".

5. Some error hint and solution

5.1 Failure of reading the software (as shown in figure14) .If it shows this figure, please check if you insert the dongle rightly.
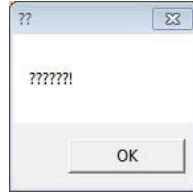
Figure 14 Failure of reading the software

5.2 No video connection(as shown in figure 15) If it shows this figure, please check if you connect the camera rightly.
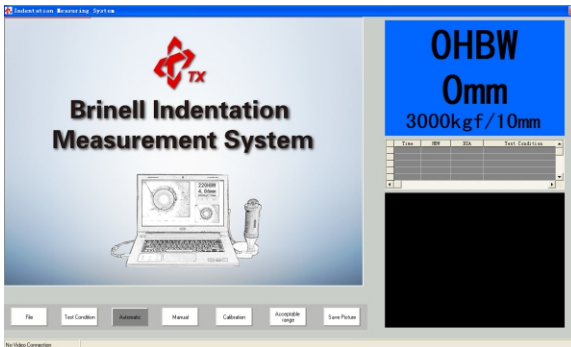

Figure 15: no video connection

6. Attention：

6.1 Please disable the antivirus program when using this software.

6.2 Please disable the local camera when using this software.

6.3 Please choose and set indenter parameter when using this software first time.

6.4 Please calibrate it when using it first time.

You can find more information and operation video in my Website: http://www.txinstruments.com /

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