Cross Cut Test Analyser - T01-700426

Thank you for purchasing a Cross Cut Test Analyser from Ascott. Please read these instructions carefully and retain for future reference.

Important Information

This equipment should only be used as intended by suitably qualified and trained personnel.

These instructions should be always readily available to such personnel.

Normal common-sense safety precautions must be taken at all times to avoid the possibility of accidents. We recommend that users produce their own risk assessment for the entire testing process for which this equipment will be used.

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1.0   Description

The Cross Cut Test Analyser is an instrument that can automatically identify the result of cross-cut tests. Traditionally, after cutting the operator examines the cut area using normal or corrected vision and classifies the result. Due to this, relatively large subjective differences are often seen. Using the Cross Cut Test Analyser ensures reliable, repeatable evaluation.

2.0 Principle

The Cross Cut Test Analyser is composed of a hand-held structure, which is placed on the cross-cut area pattern to be evaluated. It is equipped with a camera and an LED lamp. Using computer to digital image processing (visual automatic analysis) technology, the image of the test panel is digitised and analysed.

3.0 Main Technical Parameters

■ Maximum Assessable Range ： 35mm×35 mm

■ Camera Observation Accuracy ： 80px/mm

■ Light Source ： Combined LED white light source

■ Operating Temperature and Humidity Requirements ： 5℃～40℃; relative humidity≤80%（at 35℃），no condensation

■ Port ： USB 3.0 500mA

■ Minimum System Requirement ： Windows 10 / Windows 11 64-bit operating system， 4GB RAM

■ Overall Size ： 166mm×90mm

■ Weight ： About 700g

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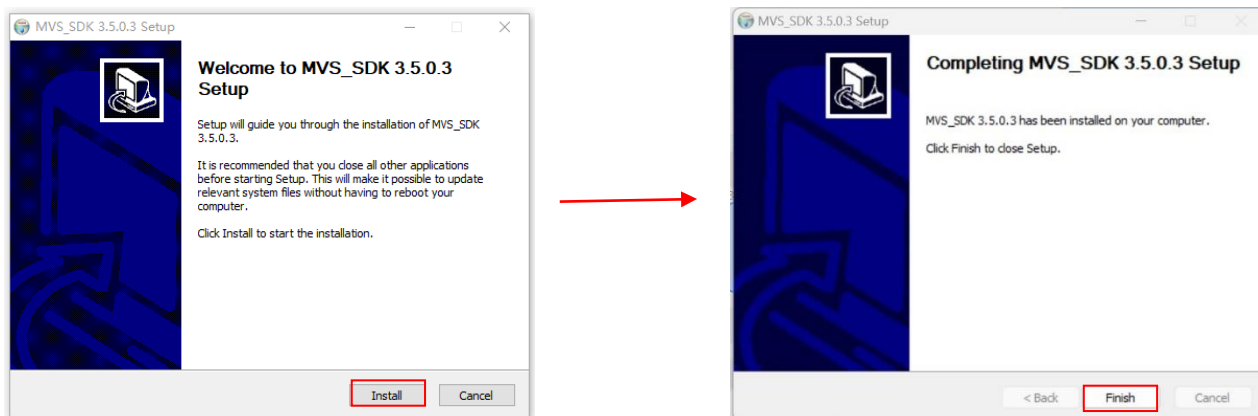Testing climate resistance to the limit

4.0 Installation and Operation

4.1 Structure

4.2 Install software.

4.2.1 Install Camera driver and double-click MVS_SDK_Vx_x_x_x_VC90_Runtime_STD.exe click "Install", and click "Finish" after installation, as shown in the following figure.

4.2.2

Firstly, Insert the U Disk into the computer, unzip the "BGD 350 Publish" in the U Disk and locate "BGD 350" in the unzipped folder. Then double click on "BGD 350" to open the software and input the registration code for the first time. Please send a screenshot of the pop-up registration window (including ID code) to Biuged Instruments Co., Ltd to receive the registration code. Enter it below to complete the registration.

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4.3 Software manual

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Camera: For image collection in real-time.

Photograph: Take an image, slide the scroll wheel to zoom in and out, and drag the image with the left button to adjust it to the best area for correct recognition.

Identify: After adjusting the image position, click "Identify", and the measurement results will be displayed.

Display: Displays the original image, the process, and the result.

Contrast Ratio: Adjusting the contrast can change the transparency of the damage area mark and clearly observe whether the damage area mark is correct.

Intervals/Number: Automatically measure the intervals and the numbers of cuts.

Cutting Width mm: When the automatically estimated cutting width does not match the actual size, it can be manually adjusted.

Damage Area: Automatically calculate the percentage of cross-cut area.

Class: Classification of results :

    0: None of the squares of the lattice are detached

    1: A cross-cut area not greater than 5% is affected

    2: A cross-cut area greater than 5% but not greater than 15% is affected

    3: A cross-cut area greater than 15% but not greater than 35% is affected

    4: A cross-cut area greater than 35% but not greater than 65% is affected

    5: A cross-cut area greater than 65%.

File: There are three options:

1. Open: Open the picture for identify, Supports png, jpg, and jpeg formats.

2. Save: Save the image corresponding to the drop-down box "Display".
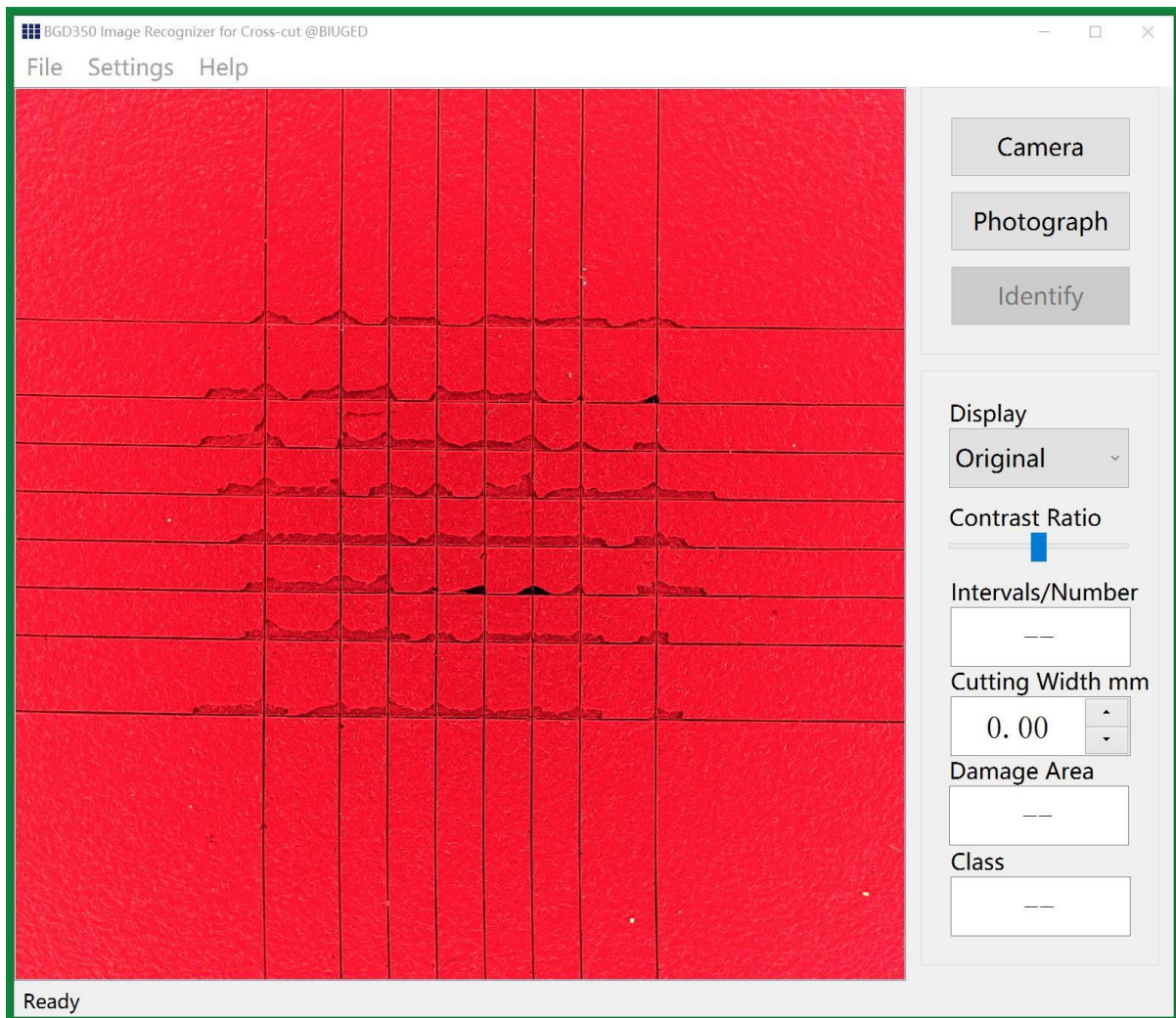
3. Exit: Exit the software.

Settings: There are three options:

1. Colour: Set the marking colours of the cutting line and the cross-cut area, with four colors available: red, green, blue, and white.

2. Parameter:

① Level 0 threshold: The detachment rate is less than this value, it will be displayed as level 0;

② Brightness and exposure time: The higher the value, the brighter the image display.

③ Threshold 1 and threshold 2: Related to the accuracy of the recognition process (Please do not change it in general)

3. Language: Modify the language of the interface to Chinese or English.

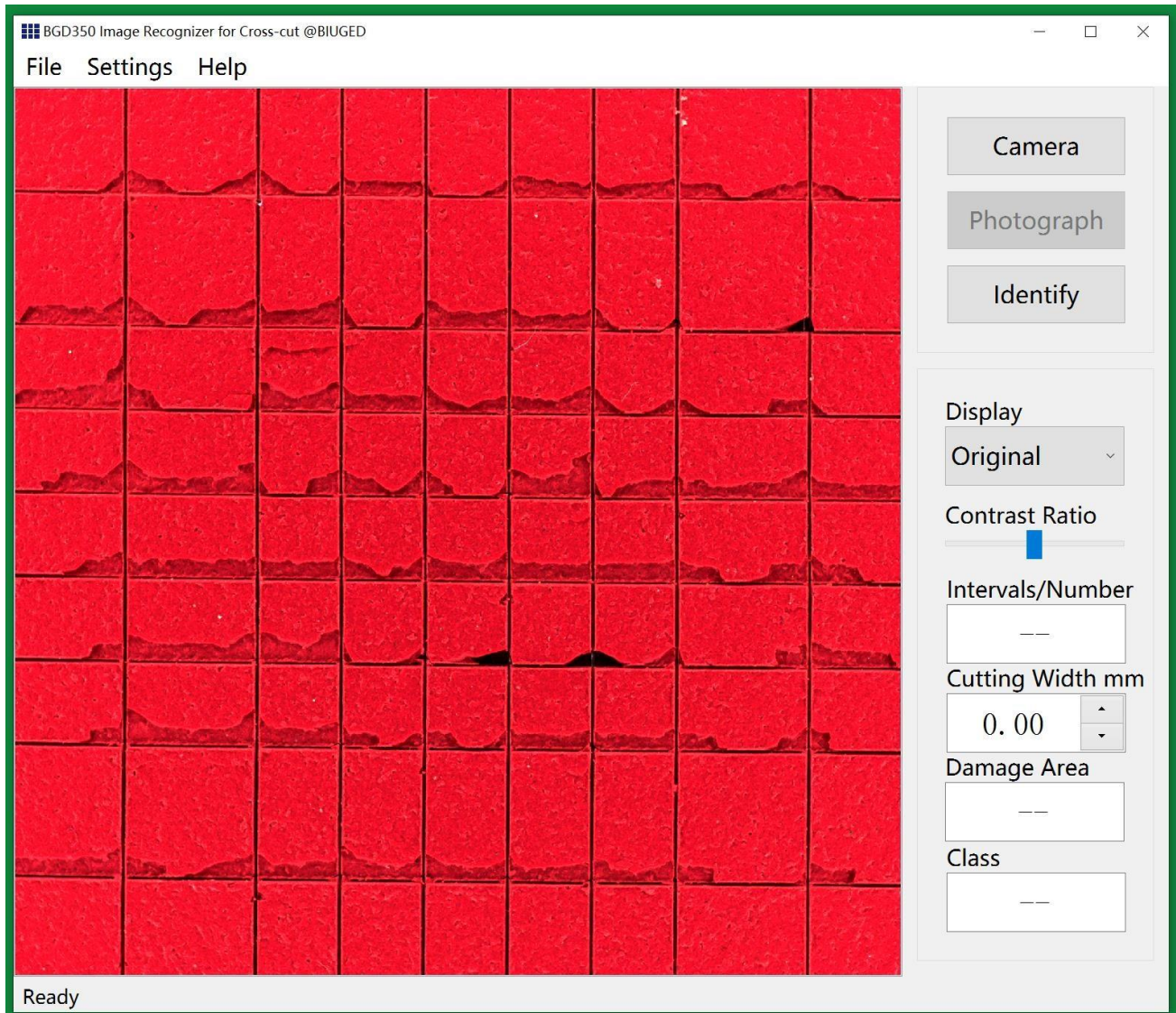Help: View the current software version and company information.

5.0 Operating Steps

1. Place the instrument on the cut test panel, observe the computer screen, and adjust the position of the instrument so that the cross-cut area is located approximately in the middle.
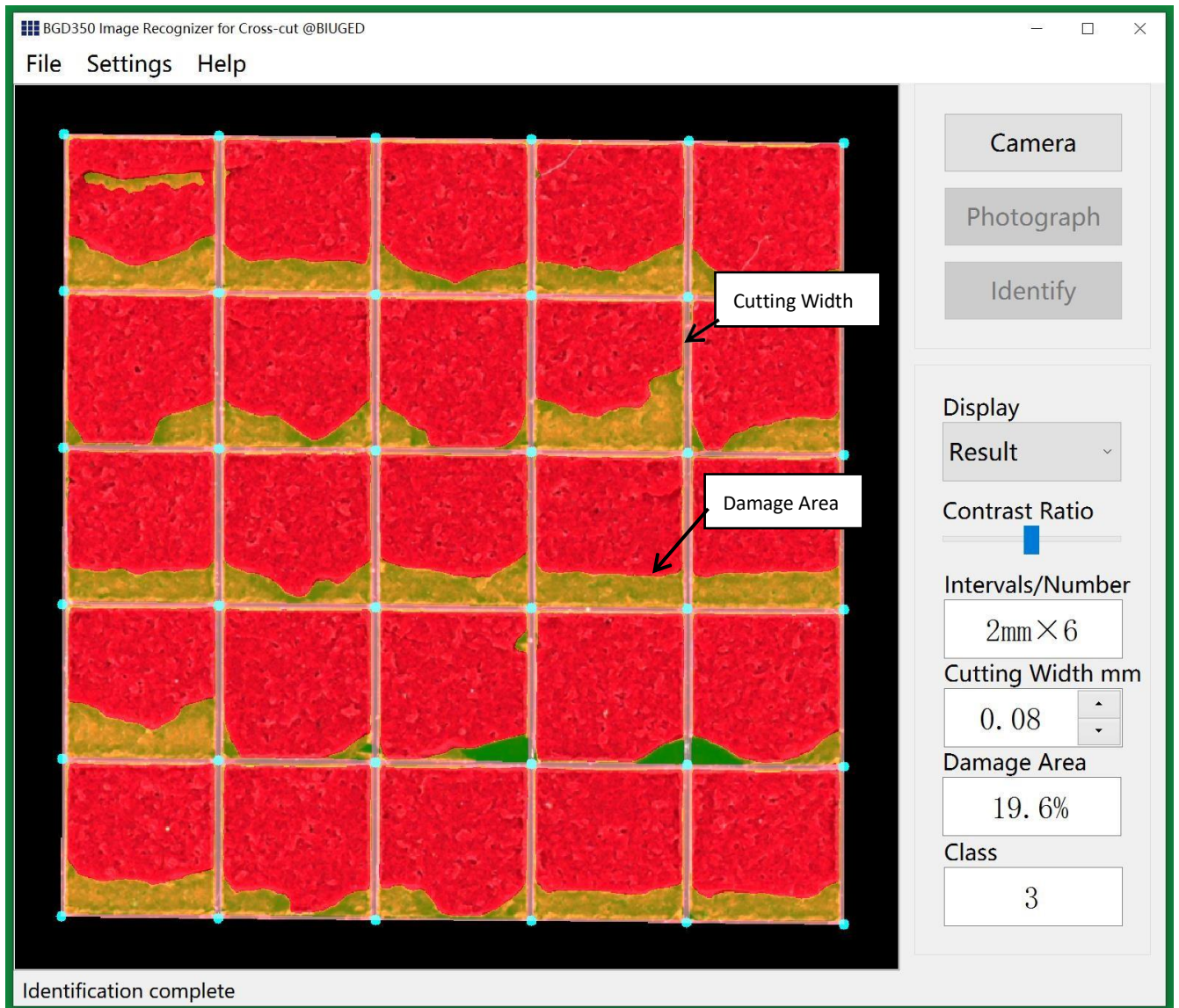
2. Click "Camera", Press and hold the left button to drag the image, and slide the wheel to zoom in or out of the image.

(NB: Ensure the measurement area of the grid fills the entire window to improve the success rate of recognition.)

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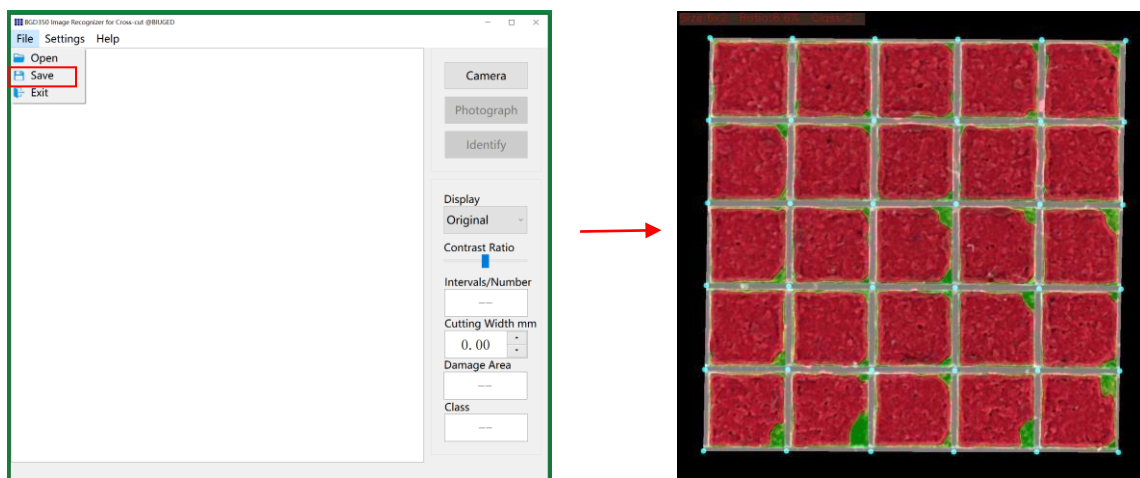Testing climate resistance to the limit

3. Click "Identify", and the damage area and the classification will be automatically obtained, the intervals /number of the test panel will be automatically measured, and the cutting line width will be estimated.

(Note: When the automatically estimated cutting width does not match the actual size, it can be manually adjusted.)

If there is a pop-up prompt after clicking "Identify":

1. "The image is too small, please adjust the image position again！" Indicates that the cut image is too small, or the image is placed too large, the image position can be adjusted and re-enlarged to complete recognition.

2. "The target was not found, please enlarge the image！" Indicates that no cutting image was found within the field of view and you need to enlarge the cutting image using the mouse scroll wheel; Incomplete cutting diagram causing the need to readjust the position or enlarge for recognition.

3. "Exceeding the range, please readjust the image position！" Indicates that the cutting image display within the field of view is incomplete and needs to be readjusted before recognition.

4. Click "File" and select the location and file name to save the measurement results as a picture as shown in the following figure.

6.0 Notice

6.1 Connect the instrument to the computer before opening the software.

6.2 Please ensure that the computer interface connected to the instrument supports USB 3.0, in order use the camera.

6.3 During use, dust or other debris should be prevented from entering the camera opening of the instrument.

6.4 The tester should be cleaned after testing.

If you have any queries regarding your new equipment, or require any additional accessories or consumables, please contact info@ascottshop.com or telephone +44 (0)1827 318040. If you wish to contact us by post, our full mailing address is 6-8 Gerard, Tamworth, Staffordshire, B79 7UW

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