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How to Enable Automatic Detection for Unplaced or Empty Adapters (No Strip)?

ERTV or ST5 UI

Explanation

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During the initial testing phase of a new variety of rapid test reagents, a large number of analytical tests are often required.

However, human errors such as unplaced adapters or empty adapters (no strip) are common occurrences during the testing process. Such errors can lead to inaccurate analysis results.

The automatic detection function can alert testing personnel to correctly place adapters or test strips, thus avoiding issues.

Methods of Automatic Detection

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1. Check Cassette Sensor
   → ST5 UI

2. Background Parameter Settings
   →"Modify Lot" in ERTV

Methods of Automatic Detection

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1. **Check Cassette Sensor**
   → ST5 UI

2. Background Parameter Settings
   →"Modify Lot" in ERTV

Enable Check Cassette Sensor

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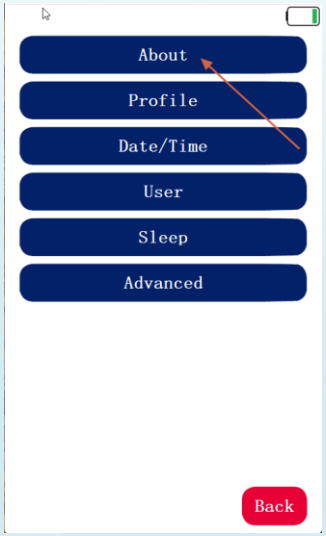

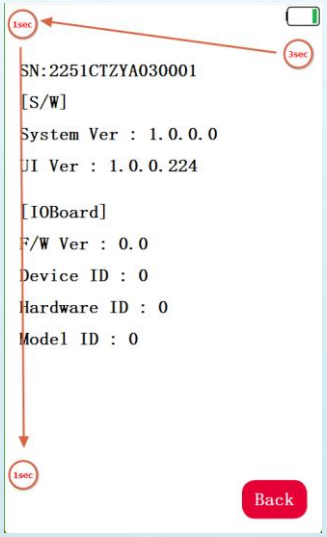

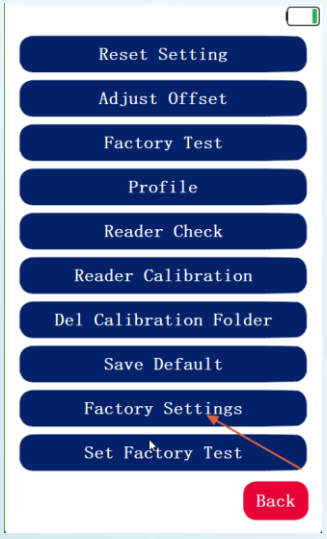

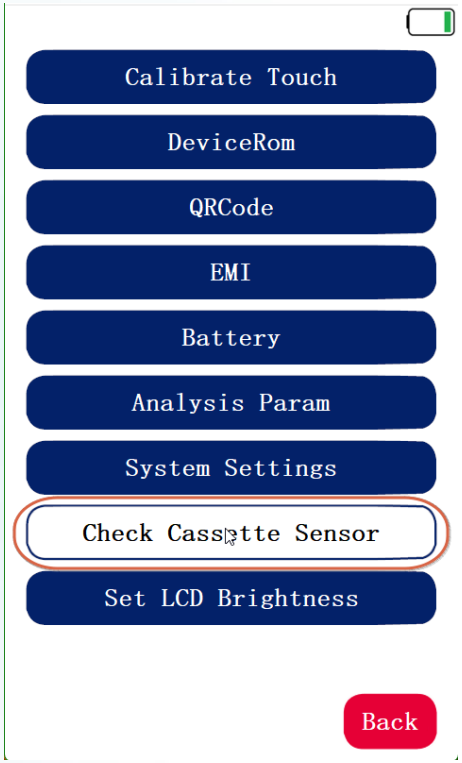

"Check Cassette Sensor" Error Notification

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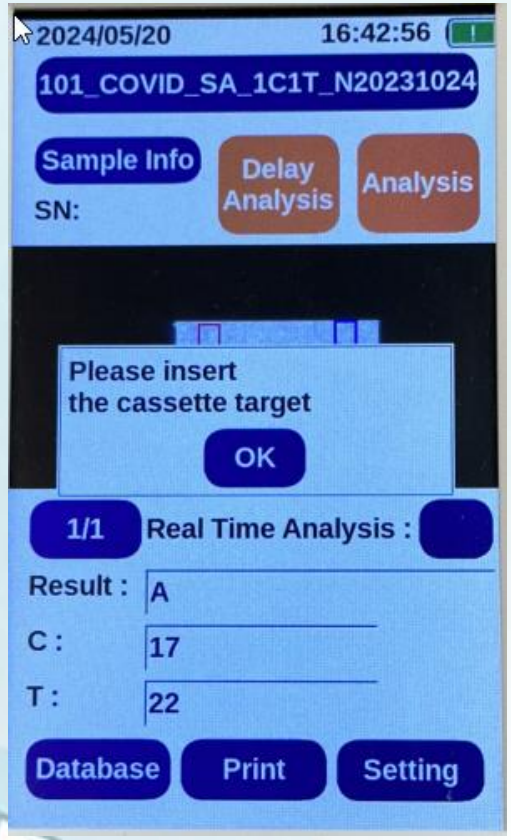
- When analysis is performed without inserting the adapter, the following message will appear:



Methods of Automatic Detection

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1. Check Cassette Sensor
   → ST5 UI

2. **Background Parameter Settings**
   →"Modify Lot" in ERTV

The Measurement Position of the 'Background' Parameter

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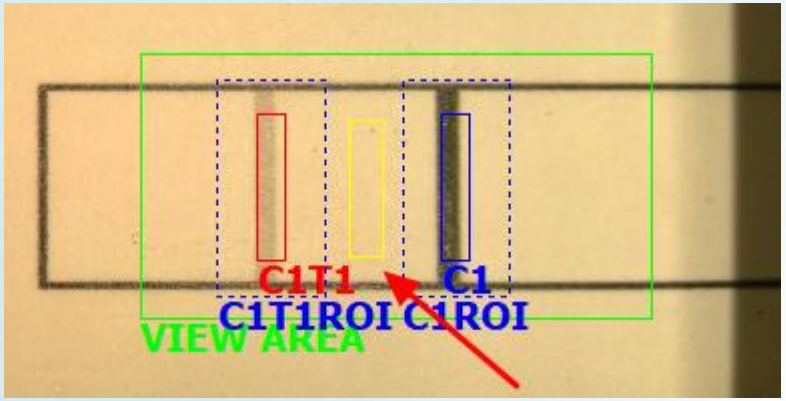
- Located approximately at the center of the two regions set by the ROI of C and T in the Profile settings, as indicated by the yellow box in the diagram below.



The Measurement Tool for Background (The Situation of Having a Strip)

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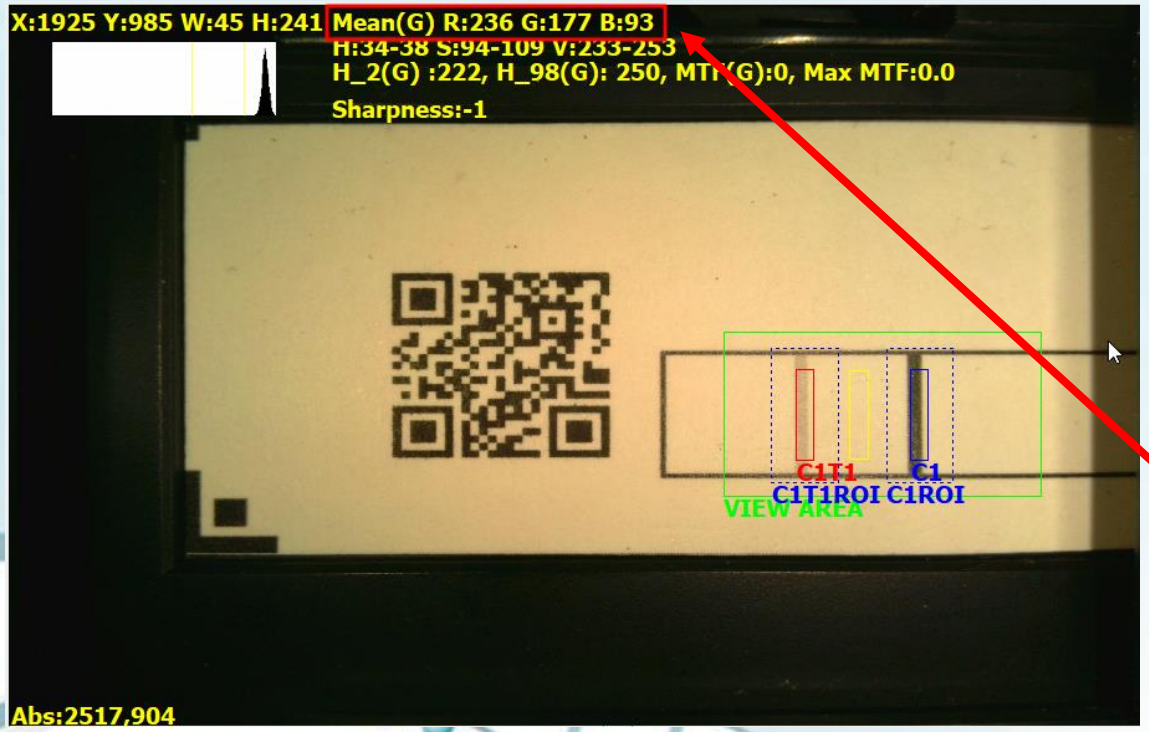
- You can use the Profile Wizard to draw a region with your mouse, and measure the actual value of the background, as shown in the following video (link below):



https://drive.google.com/file/d/1BYX68qCsJdqmO0HmPr2uouXHS3KwTtIu/view?usp=sharing

When the presence of the membrane on the sample is detected, the measured value is very high.

The Measurement Tool for Background (The Situation of Having a Strip)

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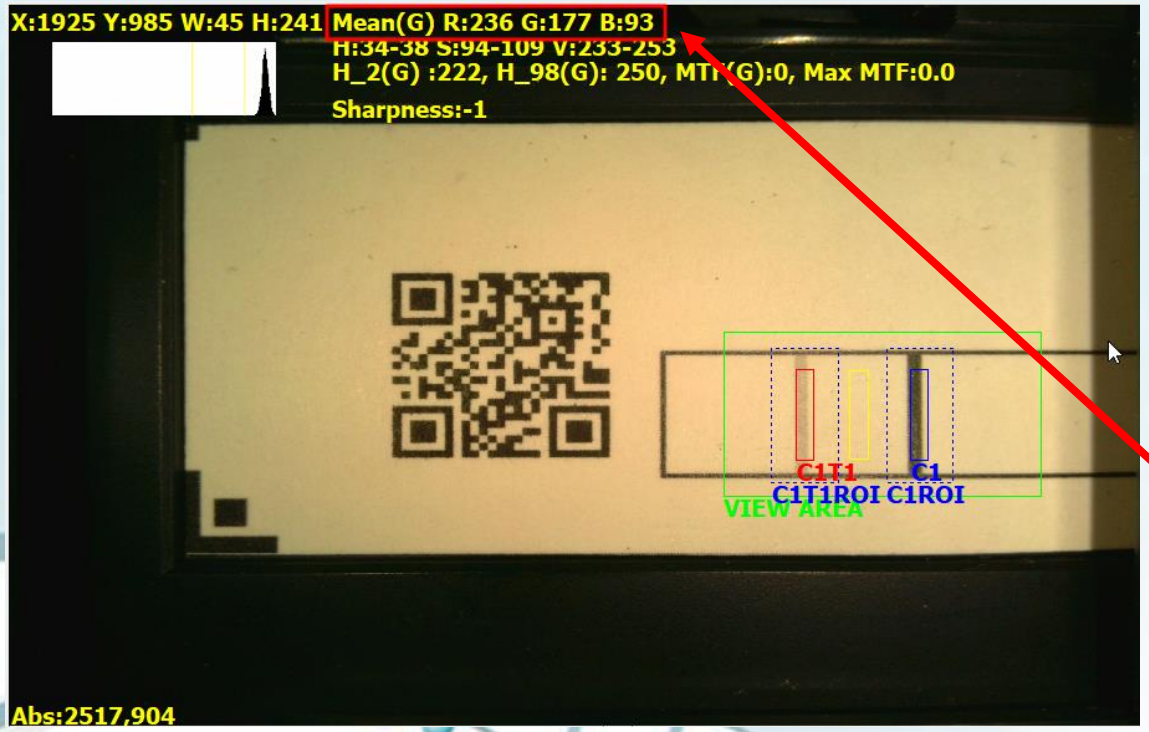
- You can use the Profile Wizard to draw a region with your mouse, and measure the actual value of the background, as shown in the following video (link below):



https://drive.google.com/file/d/1BYX68qCsJdqmO0HmPr2uouXHS3KwTtIu/view?usp=sharing

When the presence of the membrane on the sample is detected, the measured value is very high.

The Measurement Tool for Background (The Situation of Not Having a Strip)

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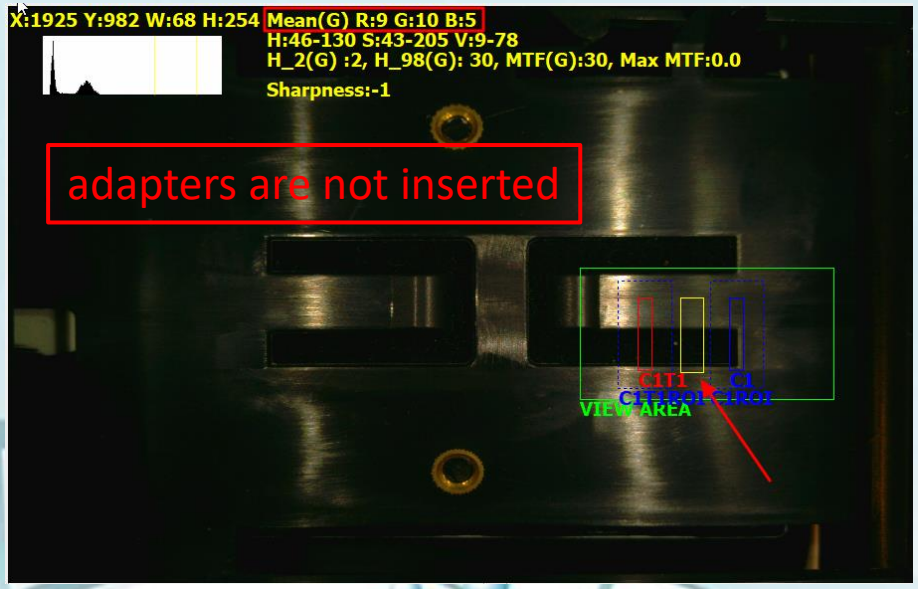
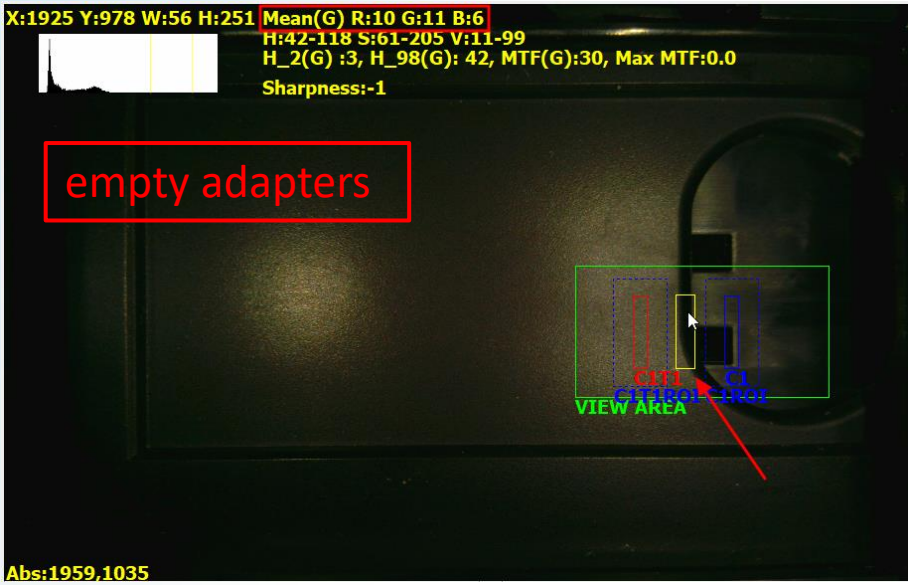
- But when adapters are not inserted or in the case of empty adapters (no strip), the value of Background is very low





Enable Background Parameter Function(ST5 UI)

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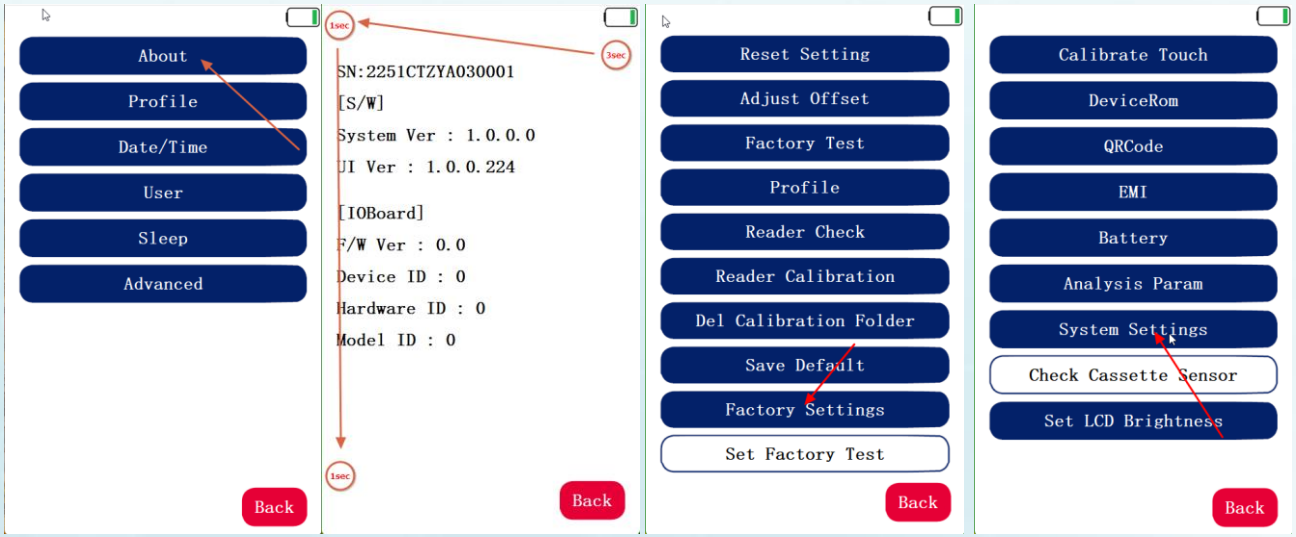

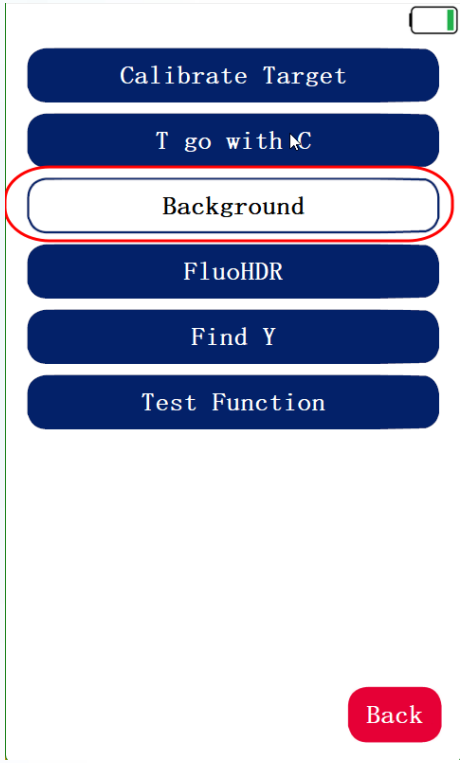

Enable Background Parameter Function(RTV & ERTV)

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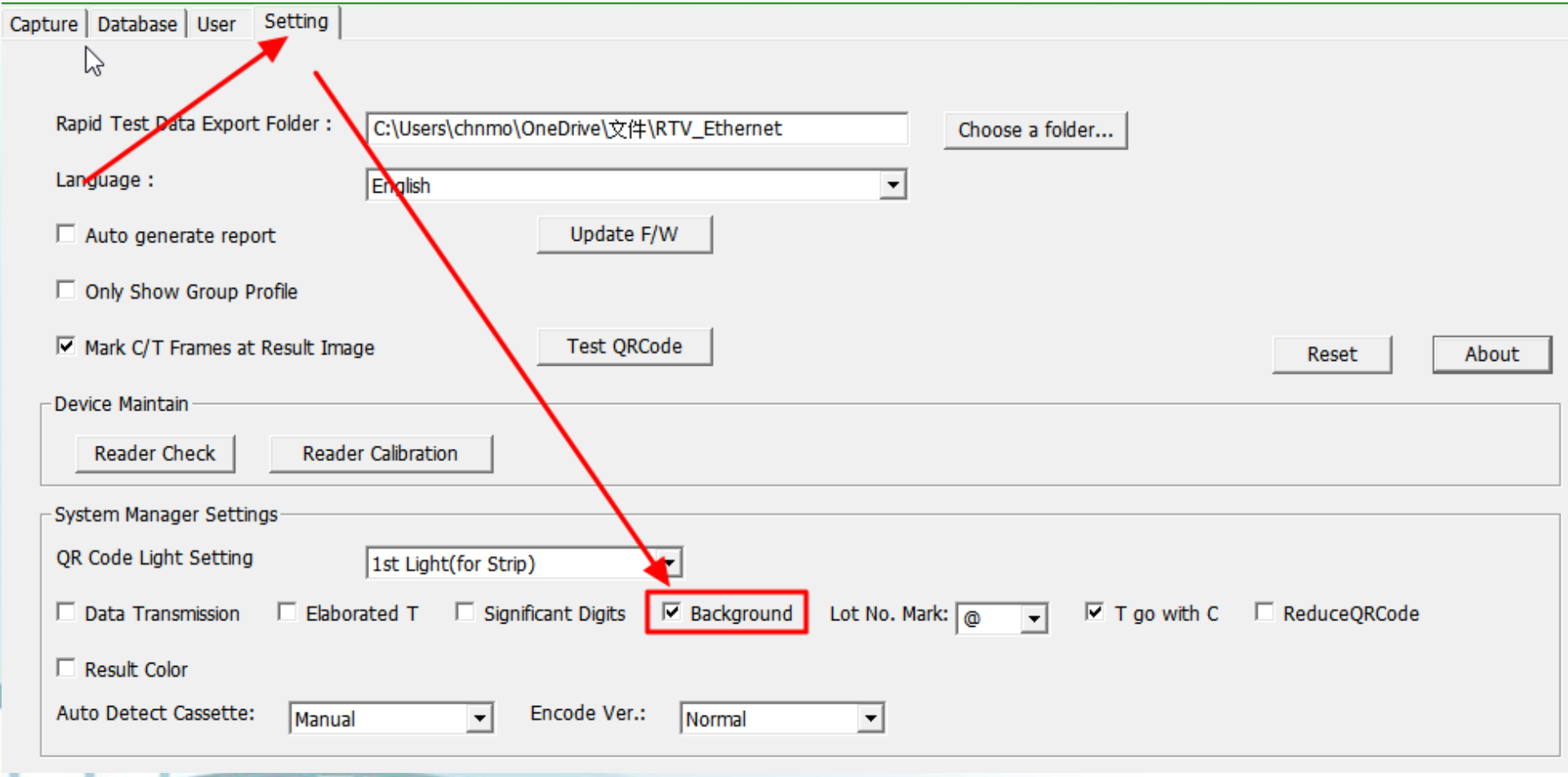

Background Parameter Setting

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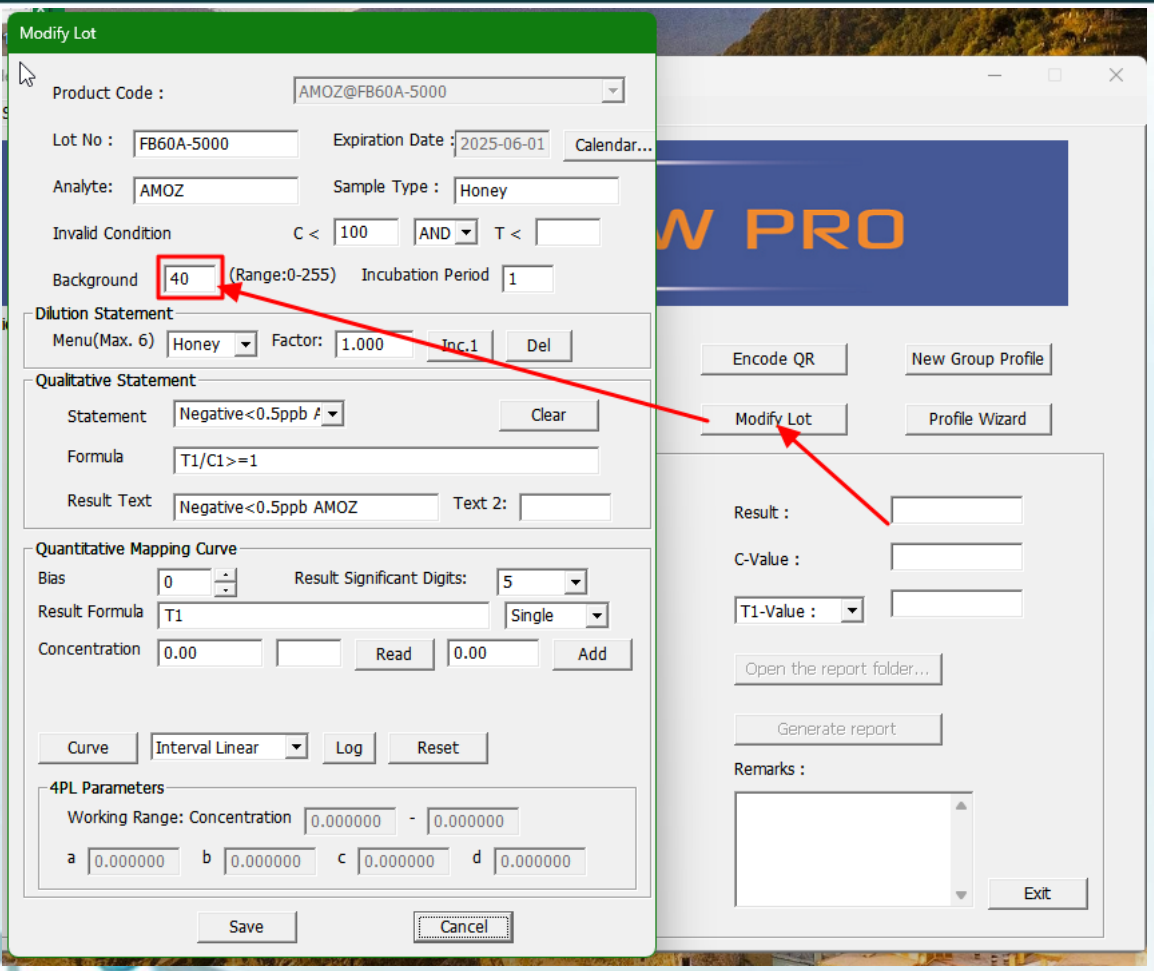

- You can refer to the measurements with and without the strip to set this parameter
- Formula for Measurement Value: Gray= 0.299×R+0.587×G+0.114×B →A common formula for converting RGB to grayscale image
- It is recommended to set it slightly higher than the measurement without the strip.
- An error message will appear if the measured value is less than the Background setting.

“Background Function" Error Notification

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- When analyzing and a darker background is detected (no strip or adapters inserted), the following message will be displayed: