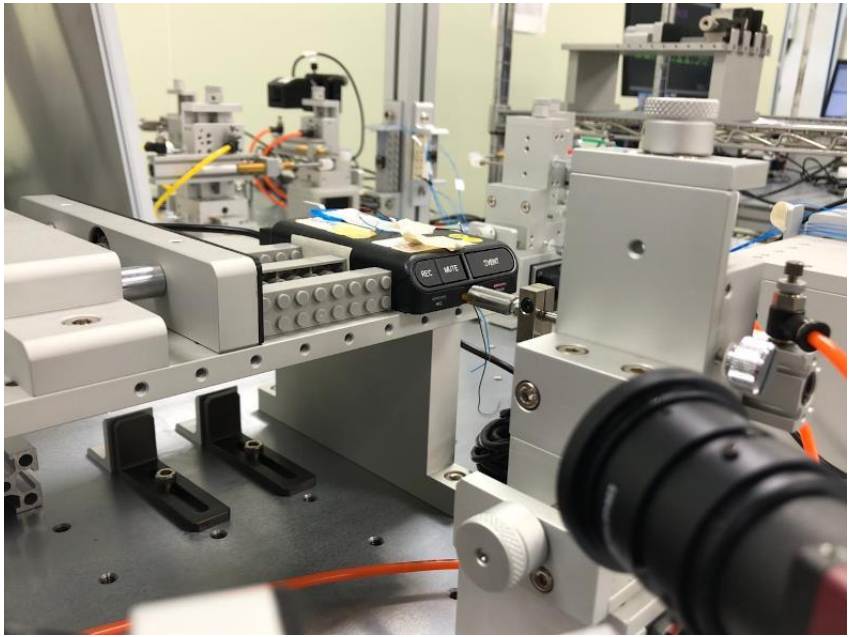
Automation Stress Testing

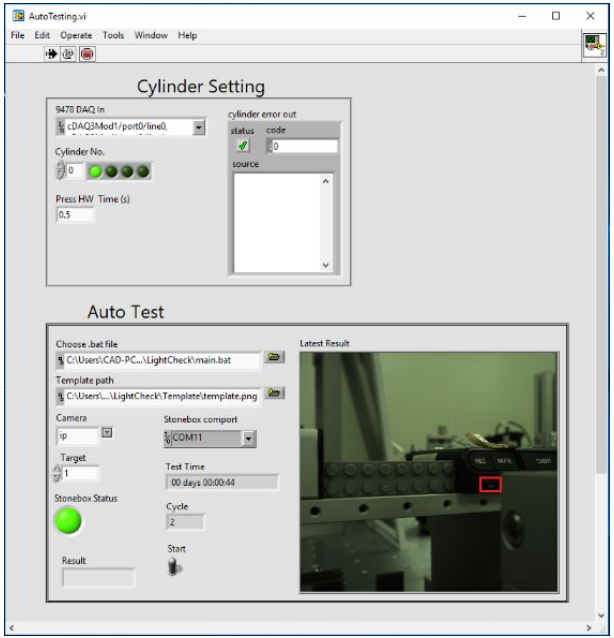
For accurate and repetitive motion quality test on devices.

LabVIEW + OpenCV

UI & instrument control

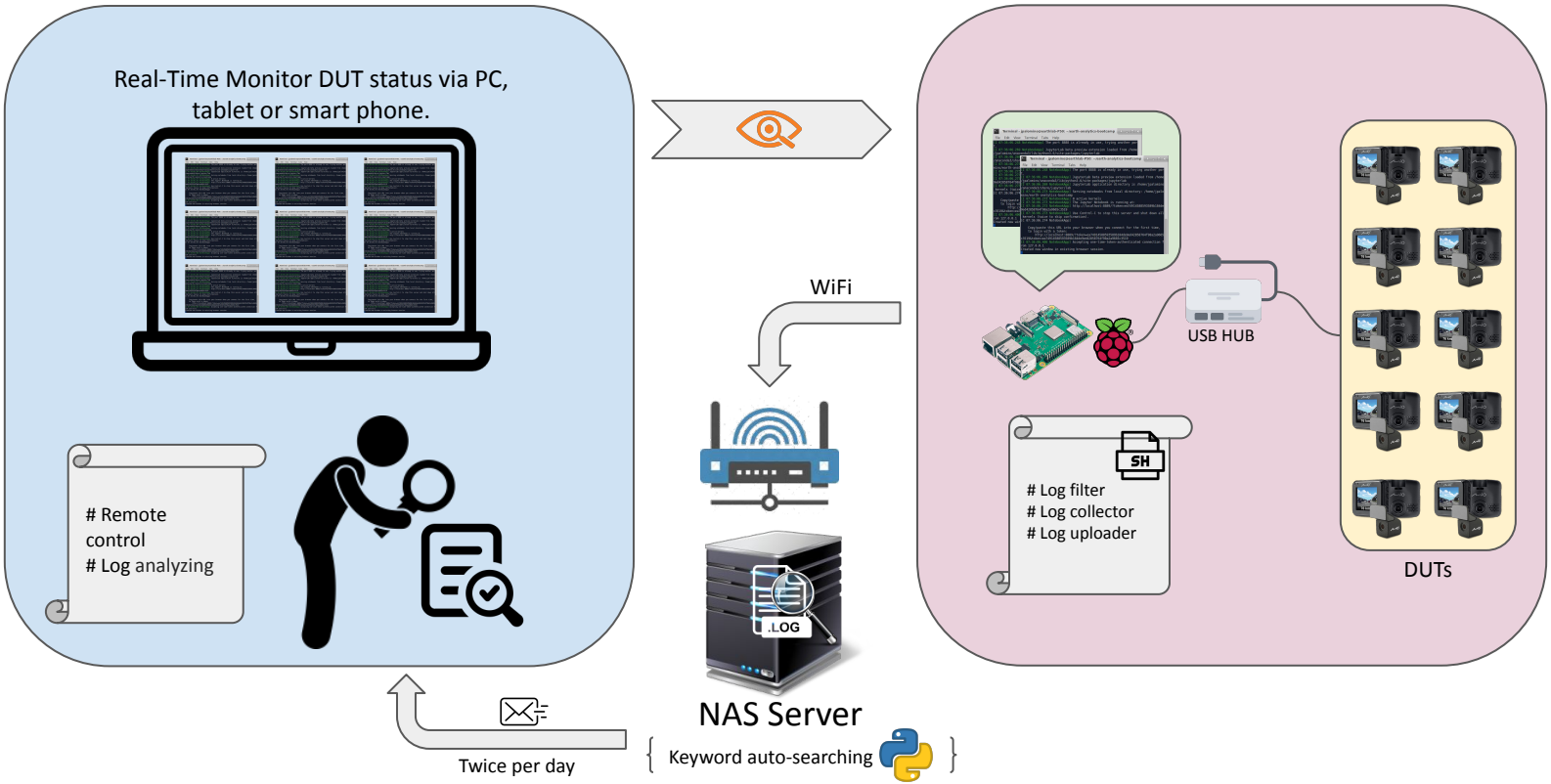
Image capture & matching





Keyword Auto-Searching System

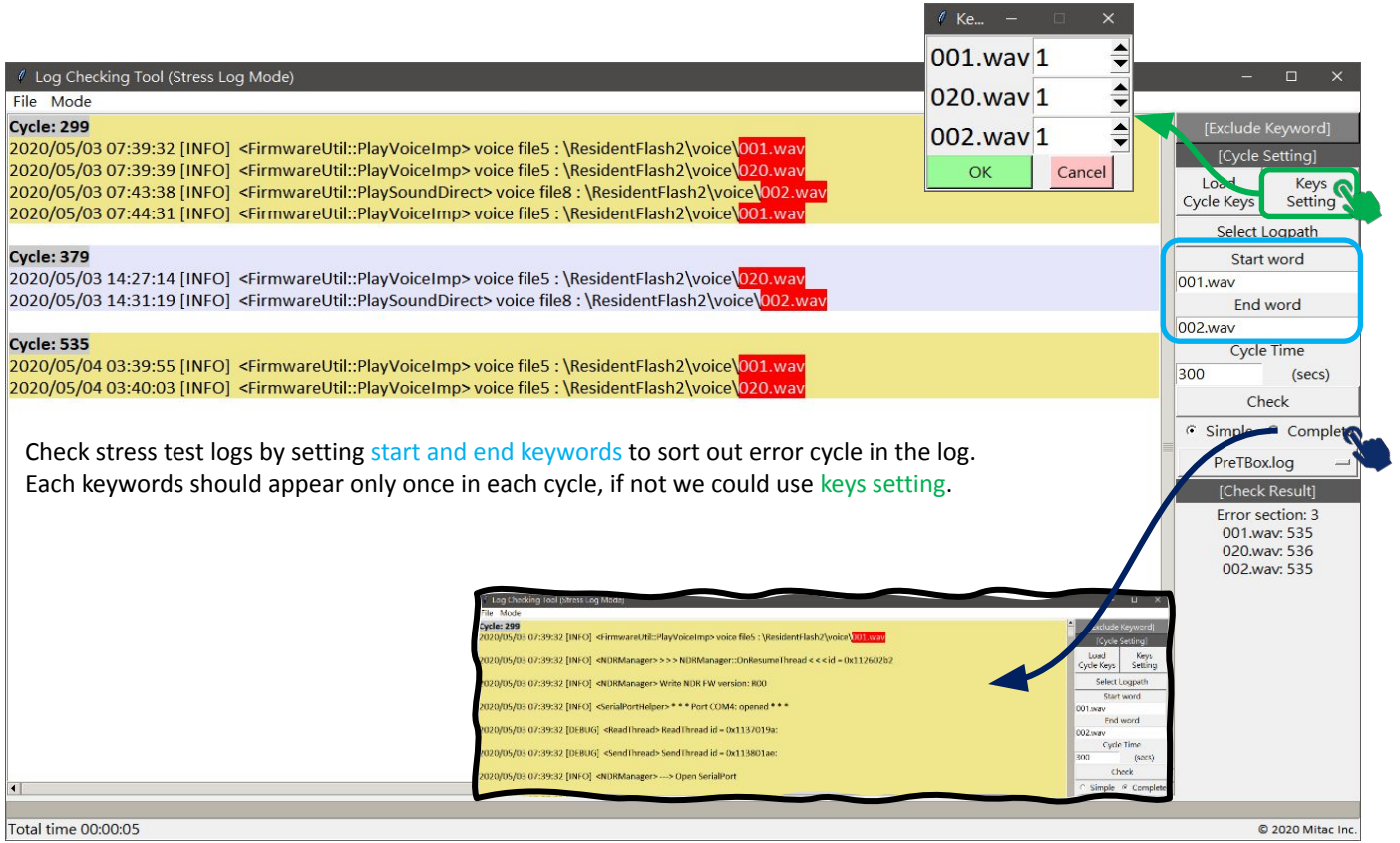
This system analysis and periodic report notification system for large log files.



Keyword Auto-Searching Tool (Standalone Ver.)

<Mode 1> **Stress test logs checking**

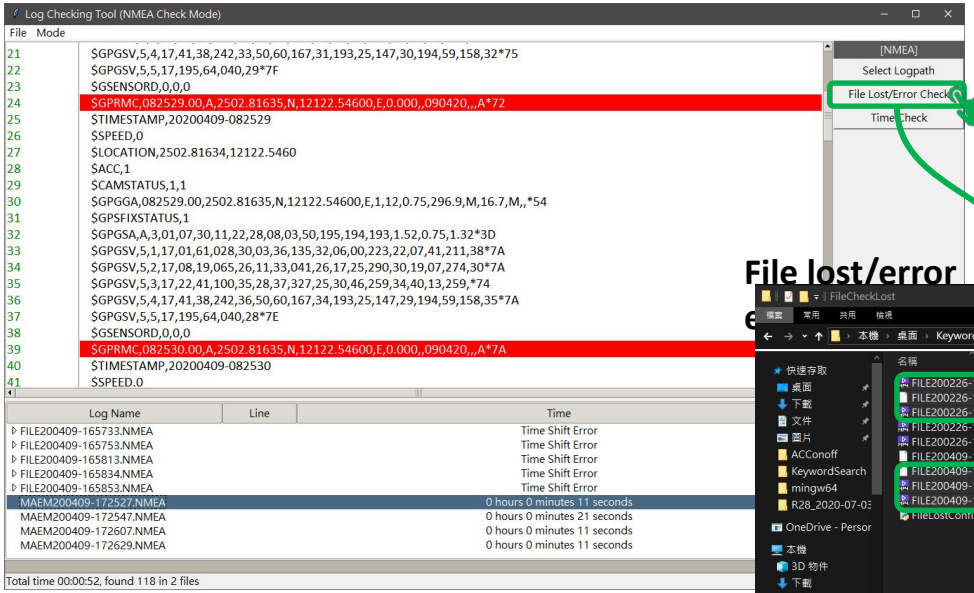
• Searching expected keywords in cycles, there are lots of cycles in every device stress log, keywords we cared for would be searched in only a few seconds via this tool.



Keyword Auto-Searching Tool (Standalone Ver.)

<Mode 2> **NMEA logs time checking**

- One-click file lost and file error checking.
- One-click GPS time sequence check.

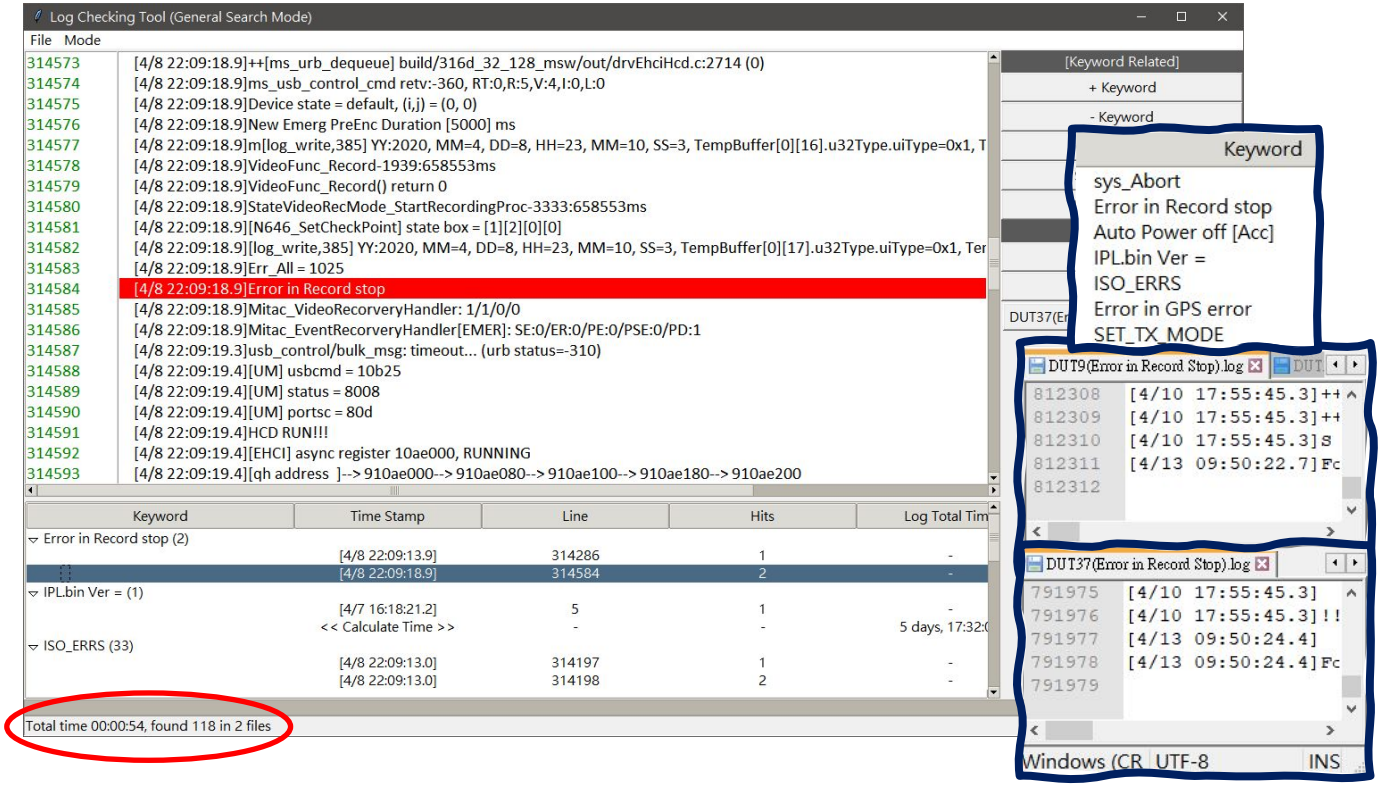


If time sequence is correct, calculate total time.
Otherwise, list all time stamps.

Keyword Auto-Searching Tool (Standalone Ver.)

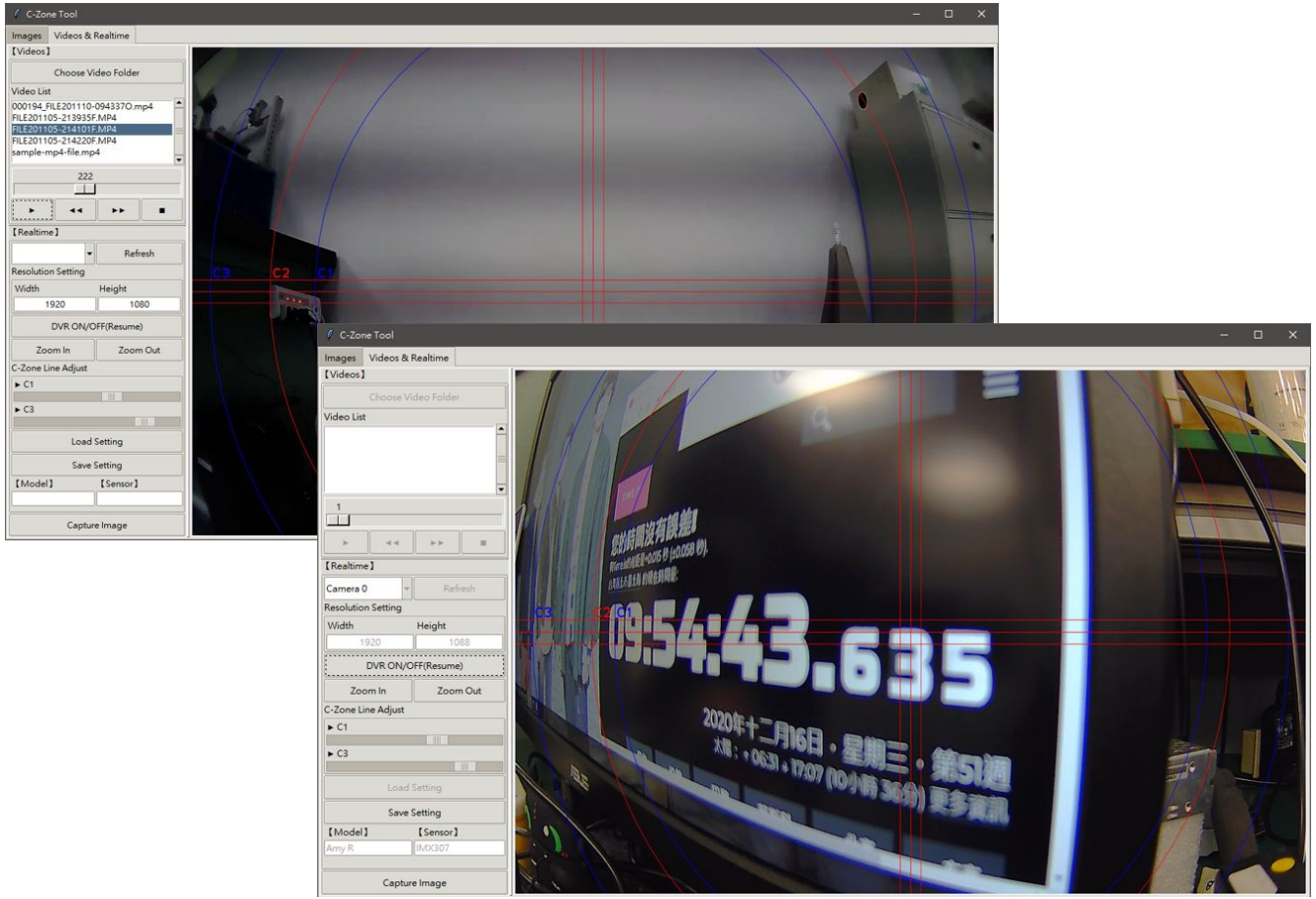
<Mode 3> **Multiple keywords searching**

- Quick keywords searching in multiple logs at one time.
- Searching result demonstrate detail.



FOV Focus Tool (C-Zone)

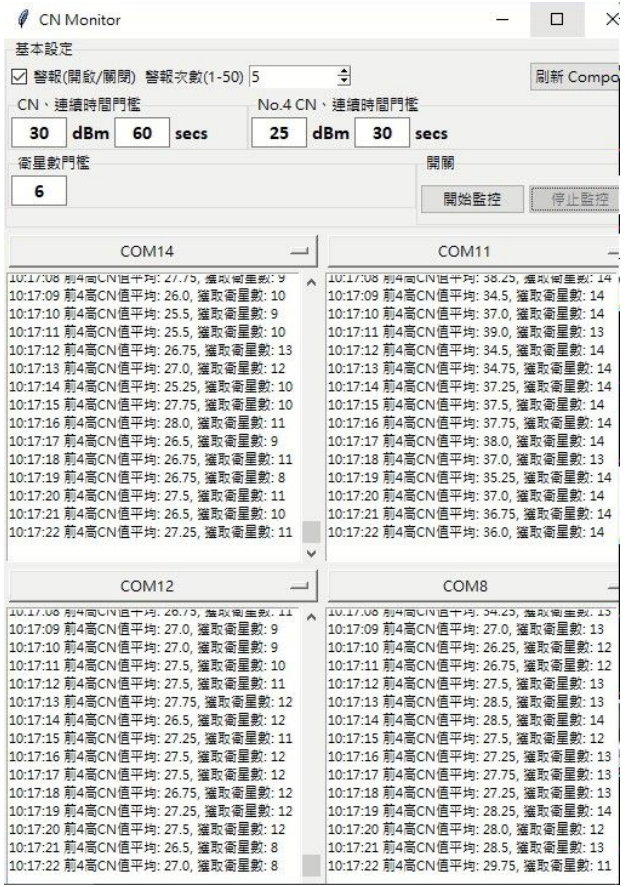
Assistant tool for DVR field of view and optical axis checking. (For capture images, videos, and also real-time used)



GPS Signal Monitor

Monitor GPS signal and realtime alarm system

- Signal values saved for root cause analyzation.
- Alarm system for LINE or Telegram



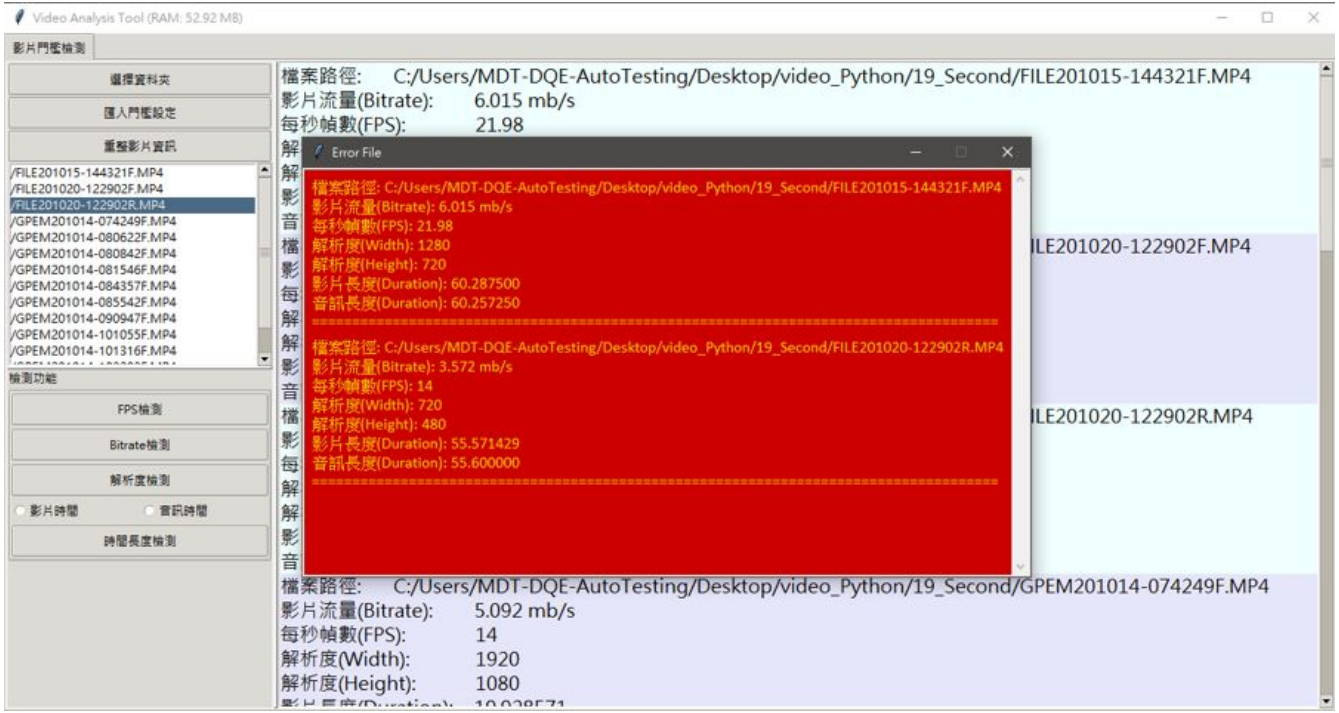
Video Files Analysis Tool

A video files analyzer

FPS, video duration, resolution, bitrate, crash file, and abnormal file detection.

Using frame error detection algorithm:

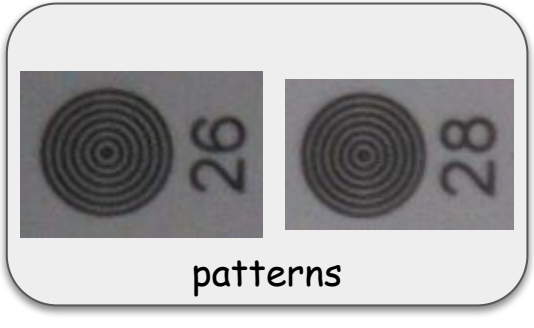
- MSE (Mean-Square Error)
- SSIM (structural similarity index)

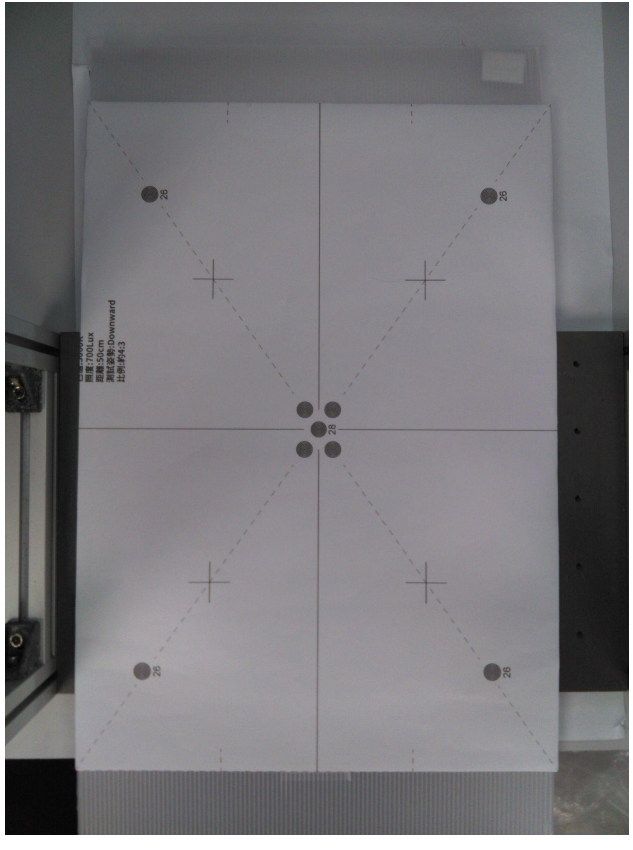


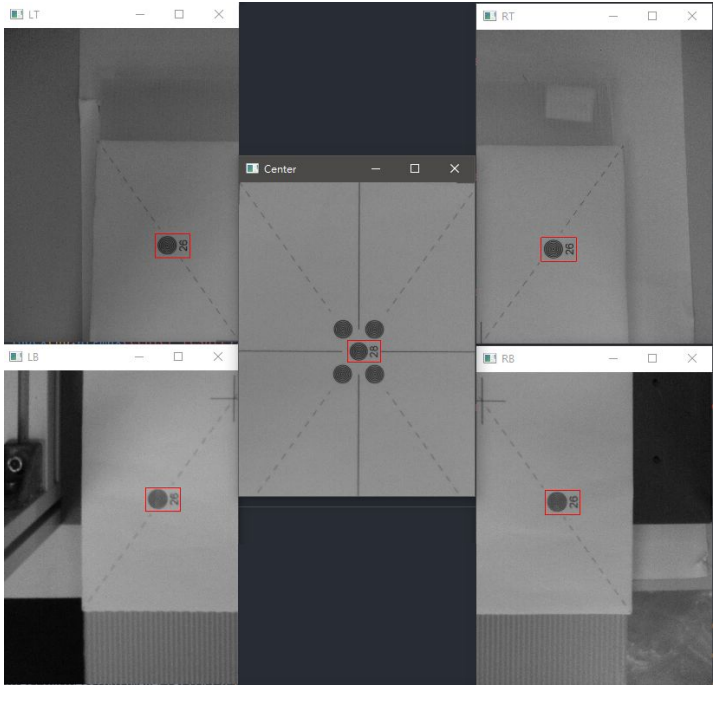
Camera Module Defocus Filter Tool (Positioning)

Somehow, each camera module might cause some failure after assembling. This tool could double-check final products' defocus or not.

- Positioning: pattern matching
- Score calculate: image processing, adaptive threshold







Camera Module Defocus Filter Tool (Score Calculation)

Somehow, each camera module might cause some failure after assembling. This tool could double-check final products' defocus or not.

- Positioning: pattern matching
- Score calculation: image processing, adaptive threshold