

Planners with extended access and **Chief Invigilator** can see the test session confidence level and review the test session recording.

1.1 High-level overview

Today, the monitoring tool is a flexible “Swiss Army Knife” that supports many workflows. In this overview we explain the most important indicators to assess the integrity of remote exams conducted securely with Inspera Exam Portal / Inspera Smarter Proctoring.

To invigilate remote exams and post exam sittings, Warnings, Confidence Level and Device Security Flags are key:

Warnings (default enabled): If there is a warning on the test session it will show with a visual flag, and it should always be inspected first.

Confidence Level (must be enabled): Confidence Level is comparing all new faces recorded by the camera with an authoritative photo captured during Id Verification, while also taking into account all recorded Device Security Violations & Suspicious Behaviours causing the test session to abort.

Device Security Flags (must be enabled): Showing details for Device Security Violations recorded during test sitting. Severe Device Security Flags are also being logged as a Warning.

2.1 Invigilation: Warning

Warnings column reports incidents and error from Lockdown browser and Proctoring Recorder.

For fully proctored sessions with Inspera Exam Portal and Inspera Smarter Proctoring, there are two components involved which are both reporting incidents and errors:

- Lockdown Browser
- Proctoring Recorder

Types of Warnings

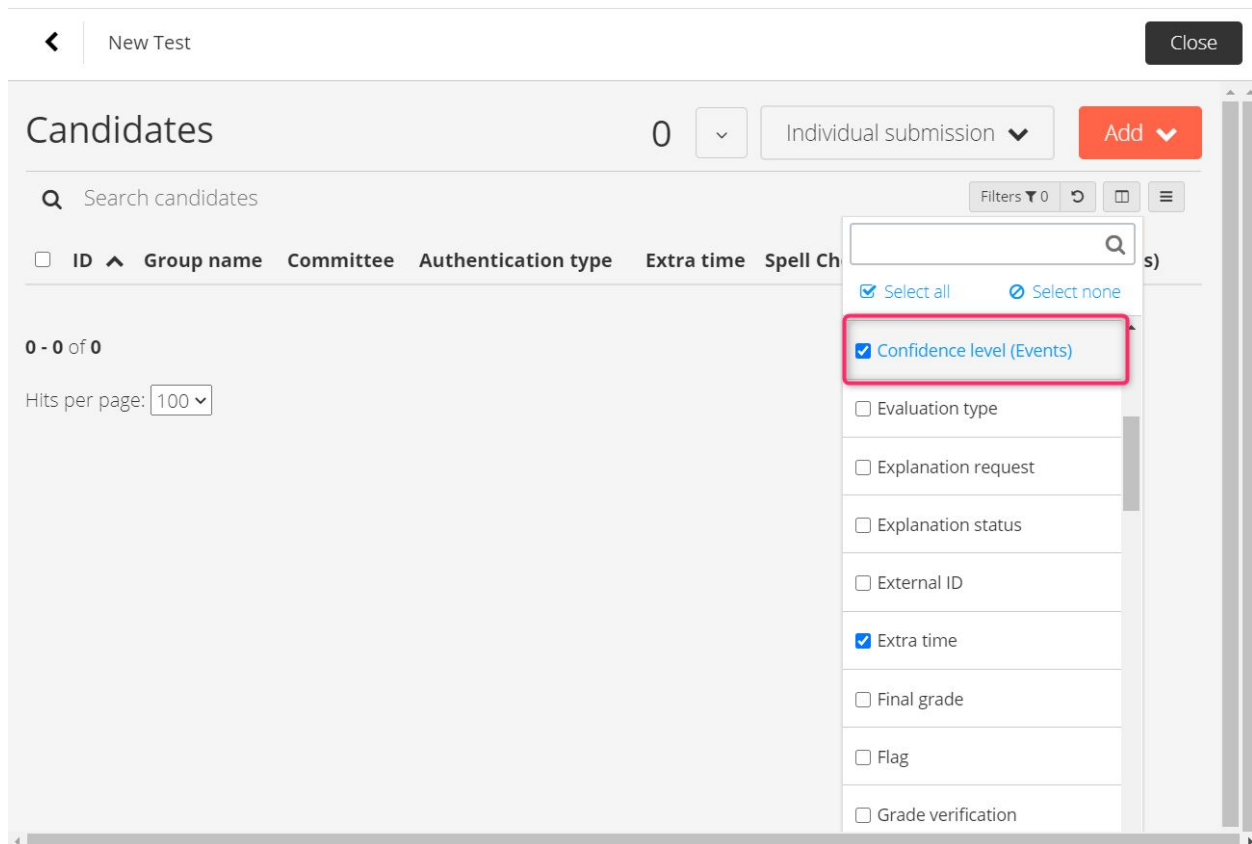
For a complete list of warnings, please see the attached pdf.

- **Lockdown Browser Exited** Test exited - Test not submitted
- **Lockdown Browser Login** Test resumed
- **Strict Lockdown Failed** Test exited - Windows User is lacking Elevated Privileges

- **Device Security Violation Detected** Test exited - Failed to access camera/ Test exited - Failed to open camera
- **Suspicious Behaviour Detected** Test exited - Too dark environment
- **Lockdown Browser Error** Lockdown Browser crashed. Test is terminated.
- **Proctoring Recording Error** Proctoring Recorder is crashing. Test is terminated.
- **Lockdown Browser Uploading Canceled** Inspera IEP Helper window closed by the exam-taker by answering “NO” to the message window appearing when closing the window.

3.1 Invigilation: Confidence Level

To enable the test session review functionality, the Confidence Level column in the Monitor tool must be enabled:



In the Monitor dashboard, confidence column can be seen with format: <flag>XX.YY%(Z), where:

1. Red flag if average confidence level is below 70%
2. Confidence level
3. Number of enter frame events

<input type="checkbox"/>	ID	Status	Progress	Minutes spent	Submission saved	Extra time	Attendance	Confidence level (Events) ^
<input type="checkbox"/>	✓ SEB514	17 days ●	12.06.2020 10:46 AM Submitted	9	12.06.2020 10:46 AM	0	Not set	66.28% (6)
<input type="checkbox"/>	✓ SEB517	18 days ●	11.06.2020 12:04 PM Submitted	7	11.06.2020 12:04 PM	0	Not set	70.99% (7)
<input type="checkbox"/>	✓ SEB510	21 days ●	08.06.2020 7:33 PM Submitted	13	08.06.2020 7:33 PM	0	Not set	85.18% (8)
<input type="checkbox"/>	✓ SEB511	18 days ●	11.06.2020 7:55 AM Submitted	8	11.06.2020 7:55 AM	0	Not set	92.99% (15)

As a general rule, face comparisons with a confidence level below 75% should be investigated. The Confidence Level is calculated as the Minimum of the confidence level of each face detected and flagged during the test session, including “Session Terminated” event which always will have confidence level of 0.

If the following warnings are being received, a new Test Event called “Session Terminated” will be created and confidence level of the Event will be set to zero:

- Strict Lockdown Failed
- Device Security Violation Detected
- Suspicious Behaviour Detected
- Cancel Lockdown Browser Upload

In this way, the Confidence Level of a test session is equal to the lowest confidence score achieved through the test, corrected for “Session Terminated” events which sets the Confidence Level to zero.

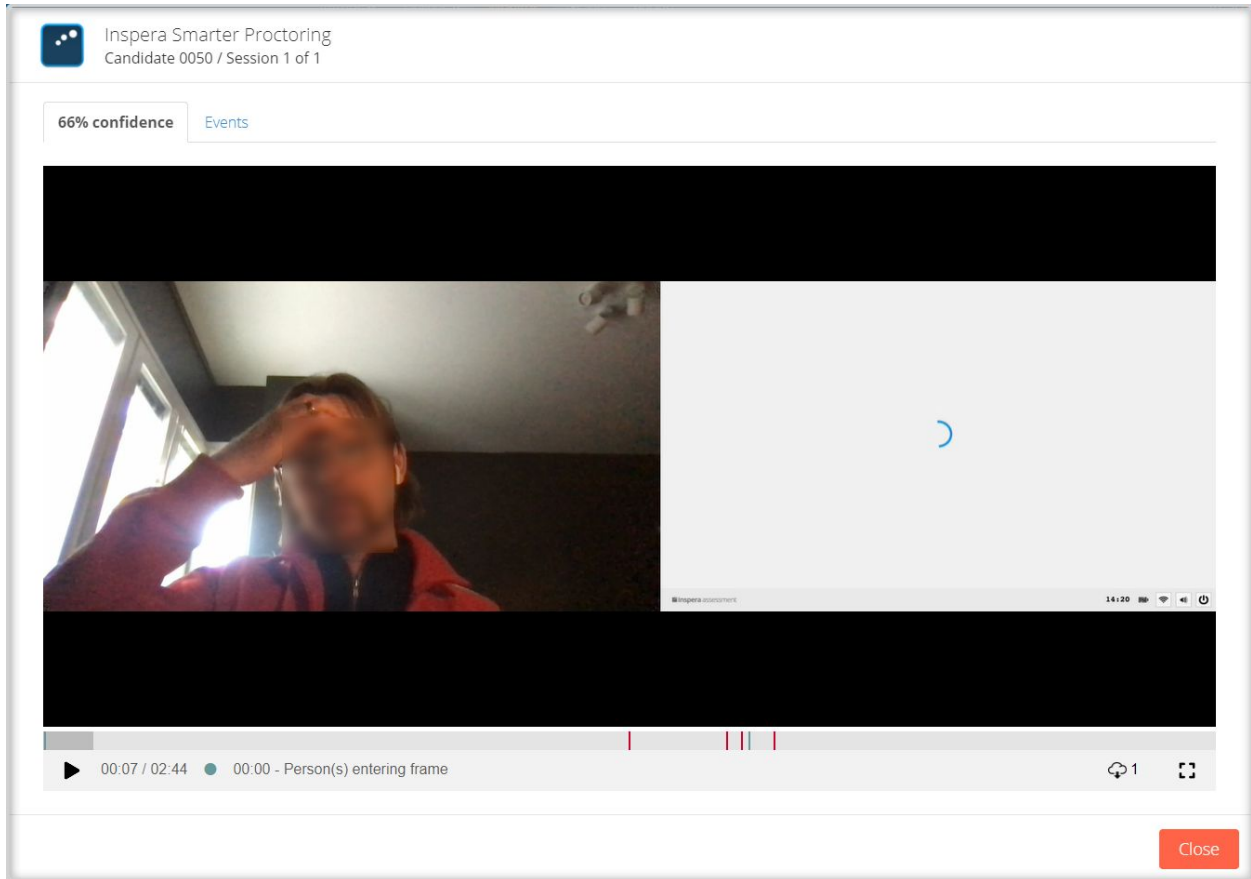
3.1.1 Test session video review

On the video player bar there are coloured strokes showing Event Types “Enter Frame” and “Leave Frame”:

Events with confidence level < 70% are marked in **red**

Events with confidence level > 70% are marked in **green**

Events without confidence level are marked in **amber**



3.1.2 Test Session Event Inspection

Click the **Events** tab, and a list of event types during the exam are displayed. The current event types are:

- Enter Frame event
- Leave Frame event
- ID Verification event, showing photo and ID-card captured as well as confidence level (only shown for first session)
- Noise event
- Session Terminated (not displayed in UI but terminates the session)

3.1.3 Multiple sessions

In case a test taker logs in and out multiple times during a test, sessions are recorded for each time. If there are multiple sessions available, it will appear when clicking on the student's confidence level.

From there, select one of the available sessions to monitor.



Found 3 sessions. Please select session to continue.

Session	Start > End	Date	Confidence level	Events
1	14.18 > 14.21	04.02.2021	99% (1)	4
2	14.22 > 14.24	04.02.2021	99% (1)	5
3	14.26 > 14.28	04.02.2021	99% (1)	5

Close

3.2 Device security flags

The following Device Security Flags (*previously Blocked Processes*) are reported:

Device_Security_Flags	Triggered when:
Registry value {registry_name} spoiled	Window Registry guard detects that one of the registry hives is altered.
{process name}	Blacklisted process was correctly terminated during the test session.
{process name}!	Blacklisted process could not be terminated during the test session.
{x} monitor(s) attached	Secondary monitor(s) was attached during the test session
Lockdown Browser lost focus to {application name}	Another application receives focus due to application switching.