



2. Along the top of the *Camera Feed Analyzer* window, select a camera from the **Camera Selector** drop-down menu. The menu displays all detected cameras.
3. Set the camera frame rate and resolution in the **Video Feed Profile Selector** to the right of the **Camera Selector** menu. Frame rate and resolution selection are only configurable for USB and IP cameras auto-discovered via ONVIF. For IP ONVIF cameras, only configured ONVIF media profiles are able to be selected. The higher the frame rate (i.e. frames per second) and resolution for a video feed, the more processing power is required to monitor and collect data from the video feed.

Once you complete this procedure, SAFR receives, monitors, and processes the video feed from the camera. The Desktop Client *Camera Feed Analyzer* window must remain open for SAFR to continue to monitor the video feed. If the window is closed, SAFR no longer receives the video feed and no longer monitors it. The *Camera Feed Analyzer* window can be minimized without affecting the monitoring of the feed.

## 9.2 Select a Video Processing Mode

A variety of different video processing modes are supported to accommodate different monitoring and security needs, as described in the table below. Each mode can be customized through the Detection, Tracking, Recognition, Events, and User Interface tabs of the **Preferences Window**.

SAFR Video Processing Mode	Description
Recognition	<ul style="list-style-type: none"> <li>• This is the default mode typically used for set-up, validation, and experimentation.</li> <li>• Only reports enrolled individuals.</li> <li>• No events are generated or recorded.</li> <li>• Available for both Windows and macOS.</li> </ul>

SAFR Video Processing Mode	Description
Import	<ul style="list-style-type: none"> <li>• Any face that can be clearly seen but is unidentified will be automatically registered.</li> <li>• Faces that are already registered are only recognized and do not create additional entries in the Person Directory.</li> <li>• Additional different face images (e.g. from different expressions) may be added to the existing faces in the Person Directory if they improve the recognition of the person.</li> <li>• No events are recorded.</li> <li>• Available for both Windows and macOS.</li> </ul>
Learn and Monitor	<ul style="list-style-type: none"> <li>• Monitors all person events within view. If a person is not registered in the system, they are added as long as the image meets the specified image quality metric criteria.</li> <li>• Allows for automatic saving of recognized persons to the server.</li> <li>• Available for Windows.</li> </ul>
Secure Access	<ul style="list-style-type: none"> <li>• Secure access uses strict criteria for confirming the identity of the face in the view of the camera.</li> <li>• Records events and images for recognized faces.</li> <li>• Listens for event replies and displays them on the screen.</li> <li>• Typically used for door access control.</li> <li>• Events and images are not recorded for unrecognized faces.</li> <li>• Available for both Windows and macOS.</li> </ul>

SAFR Video Processing Mode	Description
Secure Access with Smile	<ul style="list-style-type: none"> <li>• Uses strict criteria for confirming the identity of the face in the view of the camera. It also looks for transitions in the facial expression (e.g. non-smiling to smiling).</li> <li>• Records events and images for recognized individuals.</li> <li>• Listens for event replies and displays them on the screen.</li> <li>• Typically used for door access control where it is necessary to guard against identity impersonation via photo.</li> <li>• Includes all functionality of <i>Secure Access</i> mode and can be used to allow access on first sight recognition for a certain time (e.g. when security staff are on duty) and can change to a higher degree of security (e.g. recognition with smile expression change) at set times (e.g. when security staff is off duty).</li> <li>• Events and images are not recorded for unrecognized faces.</li> <li>• Available for both Windows and macOS.</li> </ul>
Secure Access with Liveness	<ul style="list-style-type: none"> <li>• Secure access uses strict criteria for confirming the identity of the face in the view of the camera.</li> <li>• Records events and images for recognized individuals.</li> <li>• Listens for event replies and displays them on the screen.</li> <li>• Typically used for door access control where you want to use liveness detection to guard against face spoofing.</li> <li>• See Pose Liveness Detection for information about liveness detection.</li> <li>• Available for both Windows and macOS.</li> </ul>
Enrolled Monitoring	<ul style="list-style-type: none"> <li>• Facial recognition, events, and images are only recorded for registered/recognized faces.</li> <li>• Images and events are not recorded for unrecognized faces.</li> <li>• Available for both Windows and macOS.</li> </ul>
Anonymous Traffic Monitoring	<ul style="list-style-type: none"> <li>• Only gender and age information is detected and recorded anonymously for faces viewed by cameras.</li> <li>• Images and biometric information are not recorded.</li> <li>• Available for both Windows and macOS.</li> </ul>

SAFR Video Processing Mode	Description
Enrolled and Anonymous Traffic Monitoring	<ul style="list-style-type: none"> <li>• Recognition events are recorded for registered individuals.</li> <li>• Anonymous age and gender information is also recorded for unknown/unrecognized faces.</li> <li>• No images are recorded for recognized or unrecognized faces.</li> <li>• Available for both Windows and macOS.</li> </ul>
Enrolled and Unique Traffic Monitoring	<ul style="list-style-type: none"> <li>• Events are recorded for registered and unknown individuals.</li> <li>• Any faces that can be clearly seen but are currently unknown are automatically registered.</li> <li>• Age and gender information is recorded for all clearly seen faces.</li> <li>• Images are recorded for all faces.</li> <li>• Available for both Windows and macOS.</li> </ul>
Enrolled and Stranger Monitoring	<ul style="list-style-type: none"> <li>• Events are recorded for registered and unknown individuals.</li> <li>• Faces that are clearly seen but aren't currently registered are reported as strangers.</li> <li>• Faces that can't be seen clearly enough to attempt recognition are reported as unrecognizable.</li> <li>• Images are recorded for all faces.</li> <li>• Available for both Windows and macOS.</li> </ul>

### 9.3 Recommendations for the Best Video Experience

- Use the highest resolution available (4K) if you need to monitor an area of 5 meters or wider.
- To monitor a narrow area of approximately 2-3 meters, 1080p video is sufficient.
- For up close door access applications, 720p video offers adequate quality.
- For resolutions of 1080p or higher, we recommend 15 frames per second.
- For cameras used in *Secure Access With Smile* mode, we recommend 30 frames per second at 720p resolution.
- Generally, one computer can support one 4K camera (or 2 HD cameras) for every 2 CPU cores depending on the camera make and model.