Tips to Using Biometrics

Every biometric software module has a unique enrollment wizard. The instructions are specific to each wizard, but their operations is generally the same.
Fundamentally, there are general tips that can be learned to ensure a good enrollment. We highly recommend that you have every participating user read through the tips that are specific to the technology they are working with, i.e. fingerprint scanner or an iris camera.
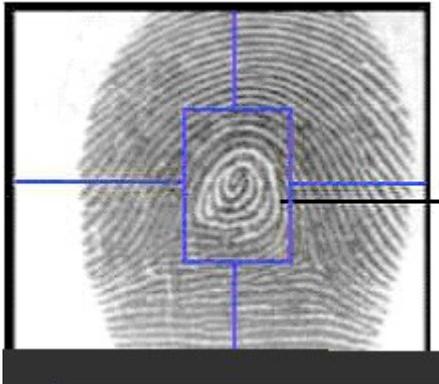
Fingerprint Scanning Tips

It is important to capture the highest quality fingerprint image possible because this initial image is used as a comparison during attempted verification. If the images do not match, the user is not allowed access.

There are two steps that ensure proper fingerprint placement on the scanner.
- Lay your fingerprint flat on the screen. Be sure you apply enough pressure to generate a clear image.
- Center the core of the image on the fingerprint scanner.

Tip: An example of a fingerprint core is shown within the blue box (shown below).

Tips on Presenting Your Fingerprint for Verification

Blotchy or Dark Image
This can occur if your fingerprint is dirty, dry, damp, or if you are applying excessive pressure. To remedy this situation, clean or dry the fingerprint and recapture the image. If the image continues to be blotchy, lighten the pressure.

Poor Fingerprints
Some individuals might have poor fingerprints and you might not be able to improve them. If this occurs, try another finger on the same hand or use the other hand.

Tips on Capturing Your Fingerprint

This section provides some background information and tips to ensure a good quality enrollment.

Proper Finger Placement

In order to ensure proper finger placement for your capture, you need to identify the core section of your fingerprint.

To ensure good finger placement:

- Identify the core of your fingerprint by looking at your finger
- Position the core on the center of the fingerprint scanner

Fingerprint Imaging Do's and Don'ts

Do's:

- Do capture the index finger first for the best quality image. If it becomes necessary to capture alternate fingers, use the middle or ring fingers next. Avoid pinkies and thumbs because they generally do not provide a high quality image.
- Do ensure that your finger is flat and centered on the scanner screen.
- Do recapture a finger that is light. If the finger is too dry, moistening the finger may improve the image.
- Do recapture a finger that has been rolled, left or right, allowing only a partial finger capture.

Do remember to:

- Identify your fingerprint pattern
- Locate the core
- Position the core in the center of the fingerprint scanner
- Capture an acceptable quality image

Don'ts:

- Don't accept a bad image that can be improved. This is especially critical during the enrollment process.
- Don't assume your fingerprint is placed correctly.

Iris Imaging Tips

Camera adjustment and positioning are critical to achieving a good iris image.

- Ideal distance: 20-24 inches away from your eye
- Adjust the angle to a comfortable angle
- Look squarely into the camera
- Cover the eye you are not capturing with your hand to gain a better perspective, i.e. your eye placement in relation to the camera
- Open your eye as wide as possible

When you look into the camera, there is a built-in guidance light that is only visible when you are properly aligned with the camera. Use this light as a gauge to how well you are positioning and adjusting yourself to the camera angle and distance.

Tip: Remove your glasses if you are having any problems enrolling with them on.

Voiceprint Capturing Tips

If you find that you are having problems enrolling or capturing your voiceprint, there are several things you can try to improve:

- Adjust the volume for the microphone line
- Using the mixer control application, you can adjust the volume of the microphone. Ideally, the microphone level should not be turned up really high. Increased volume tends to introduce noise and cut off some or all of your speech. Avoid extending the LED bar to the red area when speaking.
- Speak in a normal voice. You don't have to speak loudly or softly for the software to work. The software works best if you speak in a normal voice. Also, don't speak too fast or too slow.
- Try to eliminate background noise. The less background noise, the better.
- Try a better microphone. The microphone quality could have a very drastic effect over how well you are authenticated.

Tip: If you do use a unique pass phrase for enrollment and verification, please ensure that the phrase is at least two seconds long and it contains consonants, which force inflection in your voice.

Facial Imaging Tips

The process of enrolling your unique facial image is the result of combining several video captures, including a variety of slightly different facial characteristics and lighting. To ensure your enrollment images are the highest quality possible, there are a few tips you can try to improve the capture process.

- Adjust the lighting on and around the user's face
- Do not to use backlighting when capturing a facial image. If needed, you can increase the local lighting or dim the local lighting from a concentrated source, however, ensure the lighting on the user's entire face is even and not provided mainly from behind the user's head (backlight).
- Do not make abrupt movements

When you have centered your face in the scan area and are ready to enroll your image, it is important not to make any sudden, abrupt movements. Making small movements will actually increase the efficiency of the captures but lengthy, quick movements of the user's face will result in poor quality.