Accurate-ID and Livescan Operation:
TENPRINT AND PALM QUALITY GUIDE

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Fingerprint Quality Guide

Overview

Numerous biometric and operator variables influence a fingerprint's quality during the livescan process. For example, size, moistness, or definition can all affect how a fingerprint is re-produced. The process of fingerprinting is an art that requires both time and practice. Keep the following tips and factors in mind to reduce printing errors and to improve submission quality for your agency.
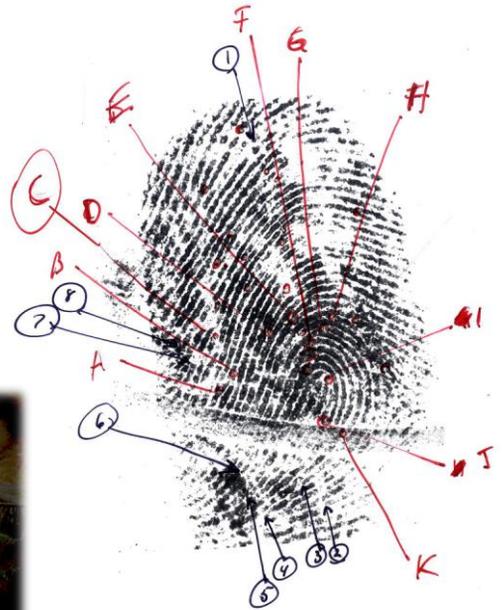
Fingerprint Quality Guide

Condition of Subject's Prints

Notice the condition of a subject's fingers and skin. Are they dry, moist, cracked, or otherwise damaged?

- ✓ Genetic factors or an applicant's occupation may cause the obstruction of or wearing down of fingerprint detail.

    a) Use a spray bottle of distilled water, alcohol wipes to lightly moisten, or a ridge enhancer to augment dry and faint prints.

    b) Distribute moisture or enhancer applications evenly over an applicant's finger and apply consistent pressure to scanner surface.

    c) Use paper towels to dry the fingers of an applicant who has overly moist skin.

Fingerprint Quality Guide

Obtaining Quality Ten Print

Fingerprints are the combination of ridges and valleys found on the hand of every individual. These ridges and valleys are comprised of loops, whorls, and arches. A good fingerprint image will be composed of the entirety of loops, whorls, and arches.

Printing Ten Print is composed of two types of prints. "Plain, Slap, or Flat Impressions" and "Rolled Impressions."

a) Flat Impressions are the four left or right fingers which are taken together simultaneously at a 45-degree angle.

b) Take your time to obtain the best possible flat impressions. These impressions are compared to the rest of a subject's prints for sequence checking. Sequence checks verify that the operator is printing the appropriate fingers and that all prints are obtained from the same individual.

L. four fingers taken simultaneously
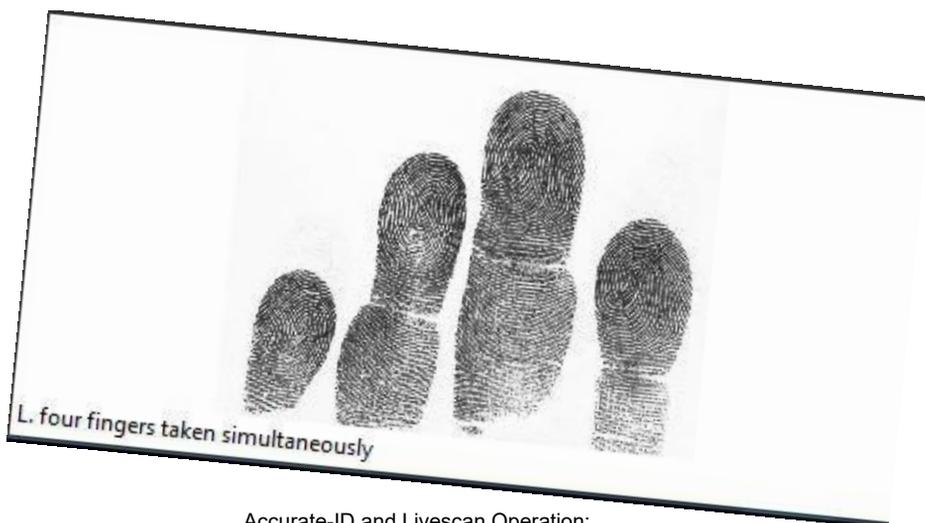
Fingerprint Quality Guide

Obtaining Quality Ten Print

Rolled Impressions are the rolling of each individual finger from nail to nail.

a) Roll complete prints from nail to nail. You may want to confirm if your scanner is set to capture using the "Rock and Roll" method or the "Edge to Edge" method.

b) Rolled prints should be captured from the first joint to the tip of the finger.

c) Apply consistent and even pressure. This will ensure that the fingers do not shift during the printing process and that detail is not obstructed.

d) Hold the base of the applicant's finger. Rotate fingers in toward the subject. Use two of your own fingers to apply even and consistent pressure on the applicant's finger while rolling. Roll subject's finger away from the center of their body. This process relieves strain and leaves the fingers more relaxed for improved print quality.

L. Middle

Fingerprint Quality Guide

Examples of Ten Print

RIGHT FOUR FINGERS TAKEN SIMULTANEOUSLY

CORRECT

Complete surface area of slaps is obtained. Hand is at slight 45 degree angle and contains finger joints, whorls, and other detail.

INCORRECT

Surface area of fingers and joints are missing. Fingers should not be "bridged." Fingers and joints should be flat against scanner surface.

RIGHT FOUR FINGERS TAKEN SIMULTANEOUSLY

Fingerprint Quality Guide

Examples of Ten Print

CORRECT

Good quality prints contain as much whorl and ridge detail as possible. The shape of these prints should almost be square or box-like in shape.

INCORRECT

Poor prints show markings, abnormalities, or inadequate ridge detail. Use enhancement methods to improve the condition of an applicant's skin or verify that prints are rolled from nail to nail.

Fingerprint Quality Guide

Examples of Ten Print

Enhancement Examples

Use various techniques in order to improve the following prints:

This applicant has rough, dry, or worn fingers. Use wipes, enhancement solutions, or distilled water to improve their ridge detail.

This applicant's fingers are too moist or have been printed with too much pressure. Dry the applicants fingers or use less pressure to reveal finer ridge detail.


The applicant's rolls are too narrow. Roll a comprehensive print from nail to nail in order to reduce the likelihood of rejection. Rolled prints should almost be square in shape.

Fingerprint Quality Guide

Examples of Ten Print

CORRECT
A set of good prints.
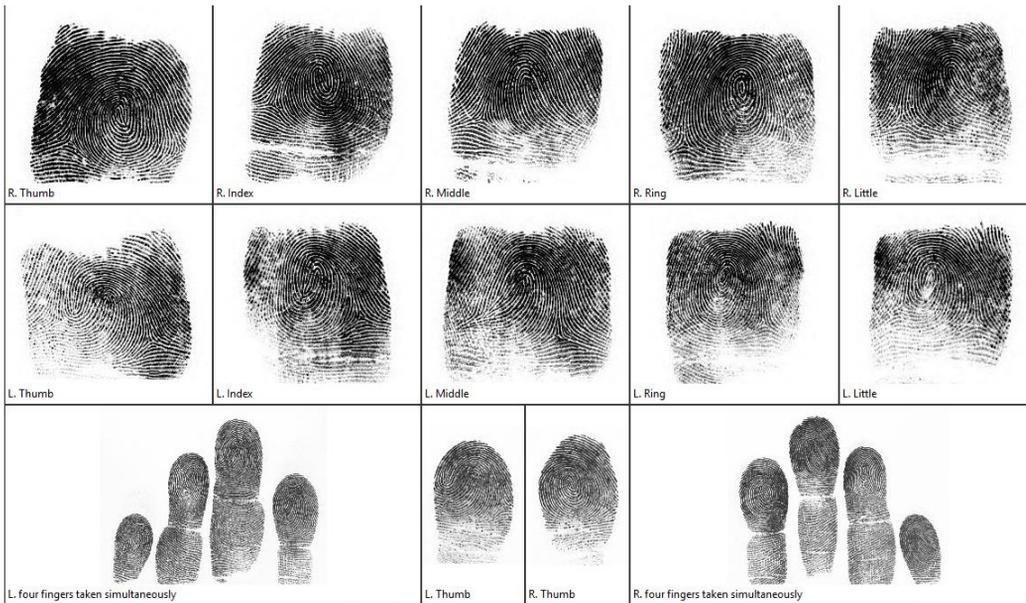
R. Thumb	R. Index	R. Middle	R. Ring	R. Little
L. Thumb	L. Index	L. Middle	L. Ring	L. Little

L. four fingers taken simultaneously — L. Thumb — R. Thumb — R. four fingers taken simultaneously

INCORRECT
A set of poor prints.

R. Thumb	R. Index	R. Middle	R. Ring	R. Little
L. Thumb	L. Index	L. Middle	L. Ring	L. Little

L. four fingers taken simultaneously — L. Thumb — R. Thumb — R. four fingers taken simultaneously
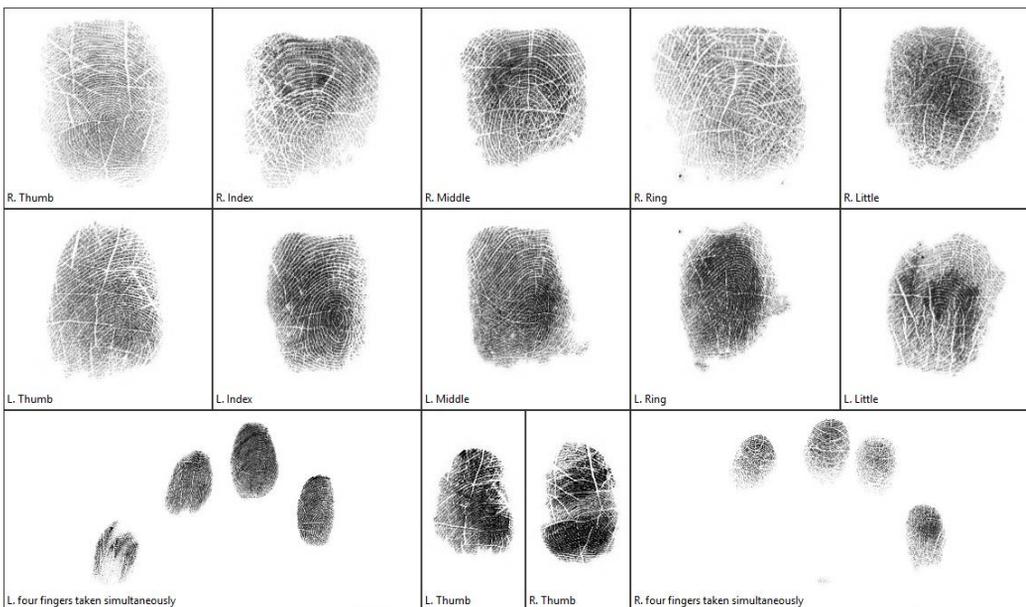
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Obtaining Quality Palm Print

Palm prints are the combination of ridges and valleys surrounding the hand core of every individual. These ridges and valleys are comprised of three regions: upper, lower, and writer's palm (Ulnar Side).
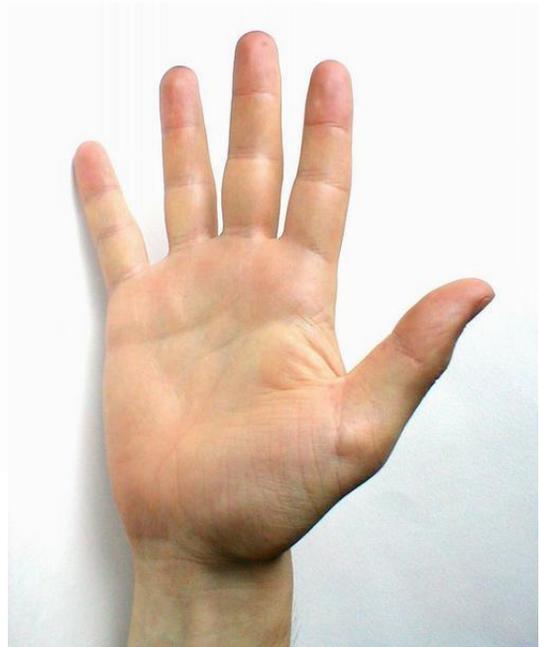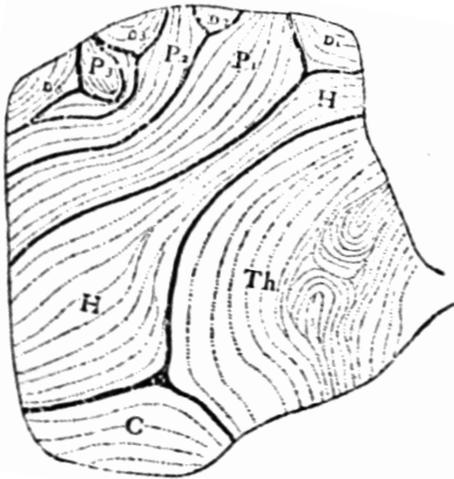
Fingerprint Quality Guide

Obtaining Quality Palm Print

Palm prints require some pressure and appropriate positioning in order to ensure a quality segmentation.

a) Observe the physical guidelines on the scanner platen. Palms may use the entire glass platen. Fingers are limited to the lined regions.

b) Upper Palms are the most important prints. They are used for sequence and quality comparison to the Lower Palms. Do your best to get a clear Interdigital area to obtain a high score.

Where to place fingers on scanner

🟥 **Four Finger Slap**

🟧 **Individual Rolls**

🟦 **Palm Prints**

Fingerprint Quality Guide

Examples of Palm Print

Upper palms do not require the thumb to be included. When taking the upper palm press along the knuckle joints to maintain a clear impression extending from the interdigital area all the way to the ends of each finger.
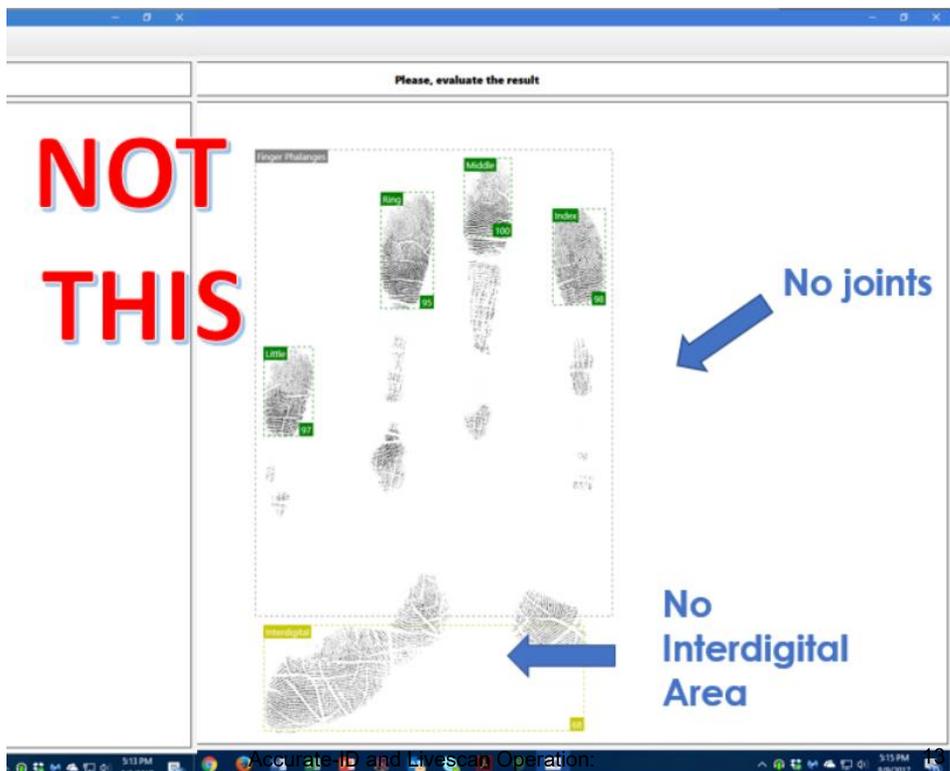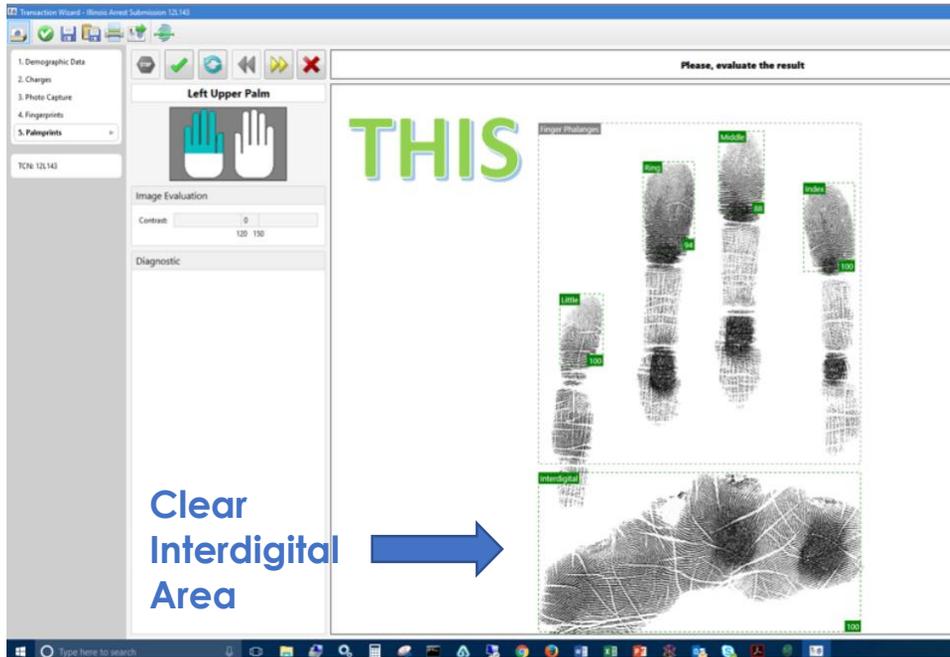
Fingerprint Quality Guide

Examples of Palm Print

When taking the lower palm gently raise the applicant's fingers and press in the center of the palm. The more relaxed and flat the hand is, the better.
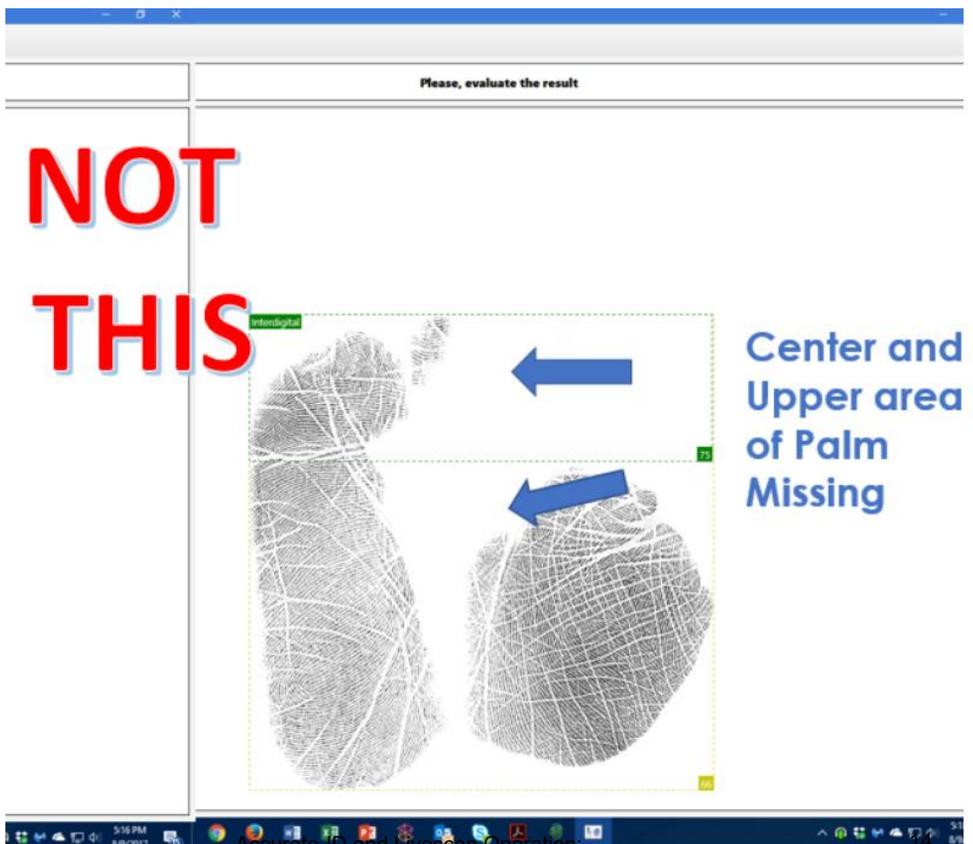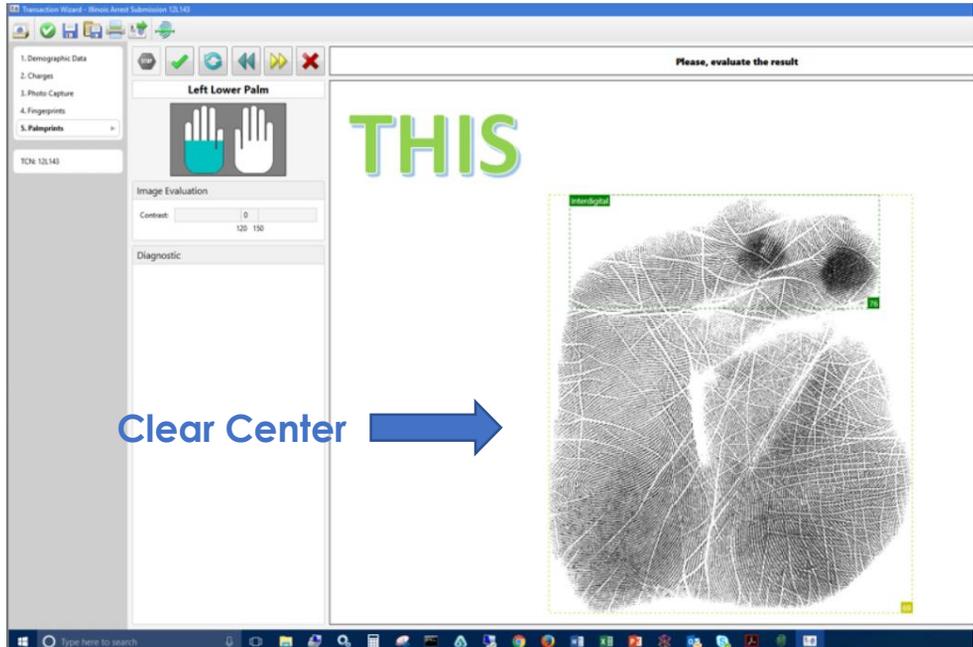
Fingerprint Quality Guide

Examples of Palm Print

Writer's palm should be centered, straight up and down, and include the pinky resting on the glass platen.
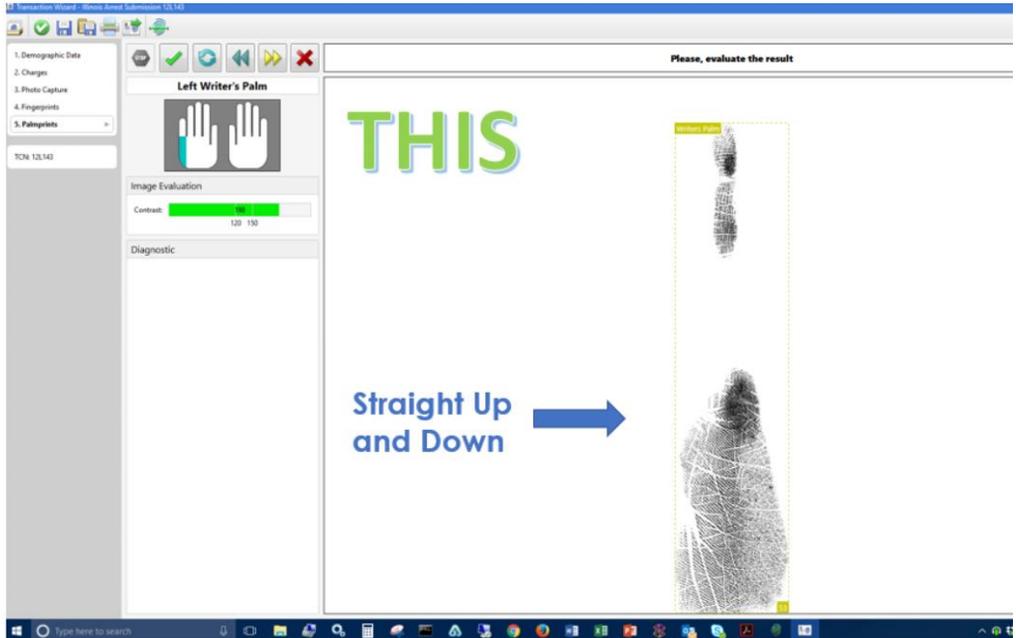
Fingerprint Quality Guide

Examples of Palm Print

CORRECT
A set of good prints.

Left Upper Palm | Left Lower Palm | Left Writer's Palm

Right Upper Palm | Right Lower Palm | Right Writer's Palm

INCORRECT
A set of poor prints.

Left Upper Palm | Left Lower Palm | Left Writer's Palm

Right Upper Palm | Right Lower Palm | Right Writer's Palm

Thank you for choosing…

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