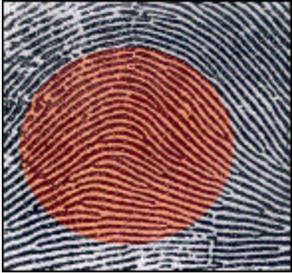
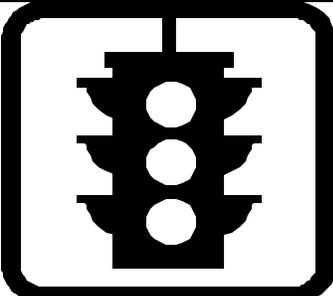


<b>The Measure Of A Fingerprint</b>		
Ridge Detail	Contrast And Clarity of Peaks And Valleys In A Fingerprint	
Composition	<ul style="list-style-type: none"> <li>Ridge Endings – point where ridges start/stop</li> <li>Bifurcation – point where two ridges intersect</li> <li>Delta – point where ridges triangulate</li> <li>Core – concentration of points near the center</li> </ul>	
<div style="text-align: center;">  <p><b><u>ARCH</u></b> In an arch pattern the ridges enter from one side, make a rise in the center and exit generally on the opposite side.</p> </div>	<div style="text-align: center;">  <p><b><u>LOOP</u></b> In a loop pattern, the ridges enter from either side, re-curve and pass out or tend to pass out the same side they entered.</p> </div>	<div style="text-align: center;">  <p><b><u>WHORL</u></b> In a whorl pattern, the ridges are usually circular.</p> </div>
<p><b>Ridge endings and bifurcations are marked and plotted, these are known as <u>minutia points</u>. Then, the distance between the points is measured in units (pixels, fractions of an inch, millimeters) or the number of defined ridges between points is plotted. These measurements identify the fingerprint and an algorithm converts the print to a format that a computer can recognize (a number). A search can now be run to find comparable numbers from other databases, and any possible matches can be examined more closely.</b></p>		
<p><b>Rolled Fingerprint Capture</b></p> <ul style="list-style-type: none"> <li>From tip to below first joint</li> <li>From nail edge to nail edge</li> <li>Use natural movement of the body (thumbs roll away from the center of the body)</li> </ul>	<p><b>Slap Fingerprint Capture</b></p> <ul style="list-style-type: none"> <li>Place finger flat on the platen</li> <li>Apply even pressure, just enough to produce the image</li> <li>Be sure fingers are properly placed on the platen (not too high or too low)</li> </ul>	
	 <p style="font-size: small; color: red; margin-top: 5px;">Right hand lean will eliminate</p>	

	<p><b>What could cause poor quality fingerprint scores?</b></p> <ul style="list-style-type: none"> <li>• Finger wiggle or slide finger on platen</li> <li>• Finger not centered</li> <li>• Not providing even contact or pressure on the platen</li> <li>• Ridges are abraded</li> </ul>	
Symptoms	Possible Cause (s)	Possible Solution(s)
<p>Dark areas in the fingerprint, and unclear ridge detail. May be smudged, blotchy or have black spots in the print.</p>	<ul style="list-style-type: none"> <li>• Finger is too moist/damp</li> <li>• Too much pressure</li> <li>• Humid environment</li> </ul>	<ul style="list-style-type: none"> <li>• Wipe off finger</li> <li>• Reduce pressure</li> <li>• Wipe off platen</li> </ul>
<p>Print is faint and ridge detail is not showing clearly</p> 	<ul style="list-style-type: none"> <li>• Finger is too dry</li> <li>• Too little pressure</li> <li>• Dry/cold environment</li> </ul>	<ul style="list-style-type: none"> <li>• Moisten the finger</li> <li>• Increase pressure</li> <li>• Place and hold finger on platen for several seconds</li> <li>• Ask the applicant lightly pinch and rub their fingers</li> </ul>
<p>Fingerprint has dark and light areas</p>	<ul style="list-style-type: none"> <li>• Uneven pressure on the platen</li> </ul>	<ul style="list-style-type: none"> <li>• Check the elevation of the capture device</li> </ul>
<p>Fingerprint has unusual lines, strange shapes or black areas</p>	<ul style="list-style-type: none"> <li>• Worn finger</li> <li>• Possible applicant purposely abraded finger with super glue or acid</li> </ul>	<ul style="list-style-type: none"> <li>• Low score may be acceptable</li> <li>• Consider possibility of spoofing</li> </ul>
<p>Smearred or blurry print</p>	<ul style="list-style-type: none"> <li>• Finger movement (finger slid on the platen)</li> </ul>	<ul style="list-style-type: none"> <li>• Reposition and recapture the print again</li> </ul>
<p>Low score print but good ridge detail</p>	<ul style="list-style-type: none"> <li>• Arched fingerprints with no core or delta (genetics)</li> </ul>	<ul style="list-style-type: none"> <li>• Low score may be acceptable</li> </ul>
<p><b>During rolled fingerprint capture, as the finger is rolled the status lights change color in the direction of the roll, as the roll progresses. Keeping the lights green during the capture ensures an acceptable fingerprint.</b></p>		
	<p>Red: Finger is not on the platen or the fingerprint image is too light. Try again and gently apply more pressure.</p>	
	<p>Yellow: Fingerprint image is too dark. Try again and apply slightly less pressure.</p>	
	<p>Green: Acceptable finger print image.</p>	