How Do Fingerprint Biometric Employee Time Clocks Work?

Biometric employee time management solutions such as fingerprint time clocks are on the rise for many reasons. These specialized timekeeping devices help manage access, eliminate time theft, improve business security, and make clocking in fast and efficient.

What is a Biometric Time Clock?

Biometric time clocks are tools for tracking and managing hourly wages. Biometric clocking systems work by measuring some unique aspect of an employee (such as the minutia points on their finger, or the pattern of their iris) and using those measurements to verify the employee. Biometric fingerprint identification takes the place of traditional verification methods, such as using a PIN or employee ID badge.

How Does a Fingerprint Time Clock Work?

When the system is set up, employees using the biometric system are enrolled by scanning their fingerprints. Using this scan, the system identifies sections of the fingerprint where ridges and grooves intersect or terminate. The product of this enrollment process is an employee's biometric template. Once the biometric template has been created, the original scan of the employee's fingerprint is discarded, and only the template is saved for future reference.

This enrollment process is detailed in the following diagram:



First, an employee's fingerprint is scanned into the system.



Next, the system identifies intersections and terminations.



Finally, an employee's unique biometric template is created.

When an employee uses a biometric time clock, their fingerprint is quickly scanned and cross-referenced with the biometric templates that are saved in the system. If there is a match between the fingerprint and the template, the system accurately identifies the employee and allows them to clock in or out. If there is not a match between the fingerprint and any template in the system, access to the time clock is denied.

Source - https://acumendatasystems.com/how-fingerprint-biometric-time-clocks-work/