

Case Study: TST Biometrics

TST Biometrics chose Neurotechnologija's VeriFinger 4.2 algorithm for fingerprint enrollment, verification and identification in their flagship product, the BiRD Touchless Fingerprint Sensor with Live Finger Detection.



TST Biometrics provides touchless fingerprint technology solutions and consulting for public, industrial and private clients in strategic markets in Europe and around the globe. From its research and development center in Munich, Germany and corporate sales offices in Munich and Abu Dhabi, United Arab Emirates, TST Biometrics works with a network of global partners, providing comprehensive solutions for the most demanding, mission-critical access control, personal identification and verification applications.

TST BiRD Touchless Fingerprint Sensor with Live Finger Detection

The BiRD's unique "touchless" fingerprint capture takes place over a large area facilitated by an ergonomically designed finger guide. The finger does not actually contact the scanning surface, which eliminates latent fingerprints and sensitivity to abrasions or contamination caused by any direct contact. The integrated camera

generates a high definition picture without deformation of the finger shape, allowing for a wide demographic population sample to be scanned successfully. The fingerprint image is encoded and specific fingerprint matching points, or minutiae, are extracted and used for subsequent comparison.

VeriFinger Fingerprint Identification Algorithm Provides the Accuracy and Speed Required for the BiRD's High Security Applications

Once the fingerprint image is captured, the process of identifying its unique characteristics begins. Sophisticated algorithms are required to analyze and match the fingerprint minutiae to create a positive identification. Because the BiRD is used for time/attendance and access control for mission-critical applications such as national border controls and high security areas like nuclear power plants, TST Biometrics needed a fingerprint identification algorithm that would provide a high degree of accuracy along with fast performance.

After a careful evaluation of the top algorithms in the market, TST Biometrics chose VeriFinger because of its strong combination of reliability, accuracy and speed.

“VeriFinger offers one of the highest quality algorithms on the market, and that level of reliability is extremely important to our high security clients,” said Martin Vierthaler, director of international sales for TST Biometrics. “VeriFinger’s fast matching speed also makes the BiRD more convenient for end-users because they do not have to wait more than one or two seconds for their fingerprints to match.”

TST Biometrics used the VeriFinger Standard Software Development Kit (SDK) to incorporate the VeriFinger 4.2 algorithm into the BiRD’s biometric manager software, enabling the BiRD’s high performance touchless scanners to provide a very high degree of speed and accuracy.

About VeriFinger

The VeriFinger fingerprint identification algorithm from Neurotechnologija is designed for use by biometric system integrators and provides the capabilities of the most powerful fingerprint recognition algorithms at a highly competitive price.

VeriFinger’s fingerprint matching has been proven to be one of the fastest and most reliable among competing identification algorithms in some of the industry’s most rigorous competitions.* By combining a commonly accepted fingerprint identification scheme with Neurotechnologija’s proprietary algorithmic solutions that enhance system performance and reliability, the VeriFinger algorithm provides fast, reliable matching of specific fingerprint minutiae points for both one-to-one and one-to-many matching.

VeriFinger SDK enables the rapid development and integration of biometric applications by giving integrators complete control over the SDK data input and output. As one of the most widely compatible fingerprint identification and matching SDKs in the industry, VeriFinger SDK can be used with any scanner, any database and any user interface and on both Microsoft Windows and Linux operating systems.

VeriFinger is available as a PC-based fingerprint identification SDK.

** Neurotechnologija ranked among the top five companies for accuracy in single-finger tests in the National Institute of Standards & Technology (NIST)'s Fingerprint Vendor Technology Evaluation for the US Department of Justice; and the company's algorithms have consistently won gold, silver and bronze medals in International Fingerprint Verification Competitions (FVC2004, FVC2002 and FVC2000).*

For more information:

For more information about VeriFinger pricing, product capabilities and specifications as well as other products from Neurotechnologija, go to: www.neurotechnologija.com.

For more information about TST Biometrics and the BiRD Touchless Fingerprint Sensor with Live Finger Detection, go to: www.tst-biometrics.com.

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