Special Tips

Dear customers:

Thank you for choosing our products firstly! This product is embedded with our latest high-speed algorithm ZKFinger 10.0, at the same time retains the old method. You can select through system option in menu conveniently.

Our company has been concentrating on the research of fingerprint identification algorithm and industrial promotion, and has applied fingerprint identification system to a variety of industries. Along with fingerprint identification system in wider applications, the market will has a higher demand for fingerprint identification algorithm's accuracy, applicability and speed etc. To satisfy these requirements, we have optimized from the sides of poor-quality fingerprint image enhancement, fingerprint feature extraction, fingerprint image classification as well as compression technology and so on to release high-speed algorithm ZKFinger10.0. The algorithm has been tested severely in a large-scale database. The performances of FAR(False Accept Rate), FRR(False Reject Rate), ERR(Error Registration Rate) have been improved greatly, and the poor-quality fingerprint images such as too dry, too wet, scars, peeling and so on have been enhanced markedly, and the verification speed has been improved more than 10 times. The fingerprint template of this algorithm has optimized the storage simultaneously and isn't compliant with the previous algorithm version. After selecting the high-speed algorithm ZKFinger 10.0, you must re-enroll user fingerprint templates and use the attached latest attendance software to do operations such as upload, download user data etc.

The company reminds you, please select the appropriate algorithm in a different environment and a different requirement. The correct algorithm selection will improve the use effect greatly. If there are problems occurred during the use, please consult our technicians for help through telephone or MSN. The loss and the other problems caused by unlawful operations, the company won't take any direct or indirect responsibility.

ZKFinger10.0 User Guide

Introduce the user guide of algorithm ZKFinger10.0, the differences between the old version and the new one, and the solutions of usual problems.

I. User Guide

1. Select the fingerprint algorithm. Press [Menu] key in device, and enter into [System Option]→[System setting]→[Algorithm Version], to select the algorithm ZKFinger10.0 or ZKFinger9.0.

2. Enroll the fingerprint template. Firstly use, select algorithm ZKFinger10.0 and enroll user fingerprint templates to experience highly accurate use-effect bought by new high-speed algorithm. Since ZKFinger10.0 is not compliant with ZKFinger9.0, the old customers using our products already are suggested to select the algorithm ZKFinger9.0 to continue using the enrolled templates, if ZKFinger10.0 is selected, all user fingerprint templates are required to be re-enrolled.

3. Install software. In order to be suited with the use of algorithm ZKFinger10.0, the software has been updated too. The customers using our software can install the latest software in the attached disk directly. The customers using our software already, please make a backup of database and then install the latest software in the attached disk to replace the old software. The customers using the second development software SDK provided by our company, please refer to "Solutions for usual problems 4".

4. Communication method. When the communications between device and software to upload and download data, it is suggested to transmit the fingerprint templates of algorithm ZKFinger10.0 by using the Ethernet to improve the communication speed.

II. Differences between algorithm ZKFinger10.0 and ZKFingr9.0

Algorithm performance: comparing ZKFinger10.0 with ZKFinger9.0, its performances such as FAR, FRR, ERR and so on have been improved greatly, and the processing effect of poor-quality fingerprint images such as too dry, too wet, scars, peeling and so on has been enhanced markedly, and the verification speed has been improved more than 10 times.

Template Size: the fingerprint template size of algorithm ZKFinger10.0 is about 1.2KB, and that of algorithm ZKFinger9.0 is about 512B. When do operations such as storing Mifare card and so on by using algorithm

ZKFinger10.0, it is required to select the Mifare card with the capacity 2K or the above.

Template Compatibility: the fingerprint template of algorithm ZKFinger10.0 isn't compliant with that of algorithm ZKFinger10.0. The users who have enrolled the fingerprint templates in algorithm ZKFinger9.0 are required to re-enroll fingerprint templates when selecting ZKFinger10.0, vice versa.

SDK: when selecting the algorithm ZKFinger10.0, SDK is required to be updated synchronously, and the new SDK will be compliant with the algorithm ZKFinger 9.0.

U disk management: the storage structure and file name of algorithm ZKFinger10.0 has been changed correspondingly, see details in "Solutions of usual problems 4".

Software: In order to be suited with the use of algorithm ZKFinger10.0, the software has been updated too. The customers using our software can install the latest software in the attached disk directly. The customers using our software already, please make a backup of database and then install the latest software in the attached disk to replace the old software.

III. FAQ

1. When use the algorithm ZKFinger10.0 or ZKFinger9.0?

A: fingerprint identification algorithm ZKFinger10.0's accuracy, applicability and speed and so on have been improved greatly. For the new customers the first time to use our products, please select algorithm ZKFinger10.0 to experience highly accurate use-effect bought by new high-speed algorithm. Since ZKFinger10.0 is not compliant with ZKFinger9.0, the old customers using our products already are suggested to select the algorithm ZKFinger9.0 to continue using the enrolled templates, if ZKFinger10.0 is selected, all user fingerprint templates are required to be re-enrolled for the originally enrolled fingerprint templates can't be used any more.

2. Is there any difference for fingerprint threshold setting?

A: as for the setting about fingerprint threshold, the algorithm ZKFinger10.0 remains the same as ZKFinger9.0.

3.Why publish the algorithm ZKFinger10.0?

A: along with fingerprint identification system in wider applications, the market has a higher demand for fingerprint identification algorithm's accuracy, applicability and speed etc. To satisfy these requirements, we have optimized from the sides of poor-quality fingerprint image enhancement, fingerprint feature extraction, fingerprint image classification as well as compression technology and so on to release high-speed algorithm ZKFinger10.0

4. For the customers using the second development software SDK provided by our company, what are the notices when selecting ZKFinger10.0?

A: when selecting the algorithm ZKFinger10.0, SDK is required to be updated synchronously, and the new SDK will be compliant with the algorithm ZKFinger 9.0. The differences between the algorithm ZKFinger10.0 and the algorithm ZKFinger9.0 are as follows:

1) The upload and download of fingerprint template: ZKFinger10.0 designates FingerIndex=15 and transmits all fingerprints of user as a template; ZKFinger9.0 transmits a fingerprint of user one by one, each fingerprint template corresponds to FingerIndex, circulating in 0-9. There are two functions of SSR_SetUserTmp and SSR_GetUserTmp to upload and download for fingerprint template ZKFinger10.0. These two functions also support the functions of old algorithm. During uploading and downloading fingerprint template ZKFinger10.0, dwFingerIndex=15 must be designated, see details in the statement of this function.

2) U disk management: algorithm ZKFinger10.0 saves fingerprints in a data block, its template has been designed as various length data structure; the template of algorithm ZKFinger9.0 has been designed as fixed length data structure. According to the different data structure of template, the data storage structure of U disk and the file name has been changed correspondingly.

3) The fingerprint template of algorithm ZKFinger10.0 is about 1.2KB, and that of algorithm ZKFinger9.0 is about 512B. When device communicates with PC, it is recommended to transmit the fingerprint template of algorithm ZKFinger10.0 by using network.

For the detailed information, please refer to the introduction<<Communication SDK manual>> or download the latest "SDK" from our website.