

Datum 03.05.2011

BioKey / Datenschutz

Sehr geehrte Damen und Herrn,

Hiermit bestätigen wir die Angaben zum Datenschutz im Zusammenhang mit unserem BioKey Zutrittskontrollsystem.

1.

Wir speichern keine Fingerabdruckbilder in unserem System, sondern nur je Finger 14 bis 50 Minuzienpunkte (Minuzien sind die Endungen und Verzweigungen der Fingerlinien) als ein Bit-Muster ähnlich einem PIN-Code oder einer Kartennummer. Dieses Bit-Muster ist Idencom-spezifisch und somit als eine Insellösung zu betrachten. Unser BioKey Fingerabdruck Zutrittskontrollsystem ist nicht mit dem polizeilichen Fingerabdruck-Erkennungssystem kompatibel. Aus den Minuzienpunkten ist es technisch und mathematisch nicht möglich, die Fingerabdrucklinien zu rekonstruieren.



Beispiel: Fingerabdruckbilder (Grüne Linien) und Minuzienpunkte (Rote Punkte)

2. BioKey Template Struktur

An Idencom BioKey template consists of a header and the minutiae themselves. The header contains general information about the template whereas the minutiae section holds up to 50 minutiae records.

```

typedef struct {
    unsigned __int64 PID;           // Person ID
    UInt8 FID;                     // Finger ID
    UInt8 AID;                      // Regist ID
    UInt8 quality;                 // image quality (from 0 to 100)
    UInt8 minutaeCount;           // minutaeCount (from 0 to maxMinuz)
    UInt8 Info1;                  // future use
    UInt8 Info2;                  // future use
    UInt8 Info3;                  // future use
    UInt8 Info4;                  // future use
    minuz_ minutae[maxMinuz];     // maxMinuz=50
} FPTemplate;

typedef struct {
    Int16 x;                       // x koordinat
    Int16 y;                       // y koordinat
    Int16 w;                       // angle of the minutae
    UInt8 value;                   // grey level of the minutae
    Int16 nx[1];                  // neighbour information in x
    Int16 ny[1];                  // neighbour information in y
} minuz_;

```

Header			Minutiae according to IDENCOM format		
PID	64 bit	8 byte	x coordinate	16 bit	2 byte
FID	8 bit	1 byte	y coordinate	16 bit	2 byte
AID	8 bit	1 byte	angle	16 bit	2 byte
Image quality	8 bit	1 byte	value (reserved)	8 bit	1 byte
Minutiae count	8 bit	1 byte	neighbour (x coord.)	16 bit	2 byte
Info 1	8 bit	1 byte	neighbour (y coord.)	16 bit	2 byte
Info 2	8 bit	1 byte			
Info 3	8 bit	1 byte			
Info 4	8 bit	1 byte			
		128 bit	16 byte	88 bit	11 byte

As stated above, the header uses 16 bytes of memory. The size of the minutiae section varies with the number of minutiae contained in the template. With a maximum number of 50 minutiae the template size can reach 566 bytes.

2.1 Header information

The header stores information about the person (PID), the finger used to enroll (FID) and the affiliation number (AID). The PID is unique, but it can have several FIDs which can also be associated to several AIDs. Furthermore the header contains the image quality of the image used to extract the template and the number of minutiae stored in the minutiae section. The four Info bytes are for internal use only.

Entry	Description	Range
PID	Person ID	1 ... $2^{64}-1$
FID	Finger ID	1 ... 10
AID	Affiliation ID	1 ... 255
Image quality	image quality of the image used to create template	0 ... 99
Minutiae count	number of minutiae in template	0 ... 50

2.2 Minutiae information

One minutiae consists of six components: x coordinate, y coordinate, angle, value, neighbour x coordinate and neighbour y coordinate of the feature. One minutiae needs 11 bytes of memory. The minutiae section of a fingerprint template can thus reach a maximum of 550 bytes.

Entry	Description	Range
x coordinate	horizontal position of the feature	0 ... 65535 pixels
y coordinate	vertical position of the feature	0 ... 65535 pixels
angle	angle of the feature	0 ... 359 °
value (reserved)	reserved for future use	0 ... 255
neighbour (x coord.)	horizontal position of the neighbour feature	0 ... 32767 pixels -1 = no neighbour
neighbour (y coord.)	vertical position of the neighbour feature	0 ... 32767 pixels -1 = no neighbour

Für weitere Frage stehe Ich Ihnen jederzeit gerne zur Verfügung.

Mit freundlichen Grüßen

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