

Dataset description:

There are 15 fingerprint images in the database (5 users; 3 imprints per user). The imprints of the same user are taken from the same fingertip. Images are in TIFF format each of size 256 x 256 pixels. These images are a small subset of the University of Bologna database. Image numbering was not changed and it corresponds to the numbering of images in the database of the University of Bologna. Thus the image 1_2.tiff contains the second fingerprint from the user number 1.

The table below lists images and locations of the core and delta points that correspond to these images. Note that fingerprints from the fourth user have 2 core points and one delta point.

Image	Core location	Delta location
1_2.tiff	(176,143)	(172,171)
1_4.tiff	(164,157)	(158,185)
1_6.tiff	(154,151)	(147,180)
3_2.tiff	(130,174)	(137,212)
3_4.tiff	(120,180)	(129,202)
3_6.tiff	(139,168)	(146,196)
4_4.tiff	(111,145); (132,128)	(72,190)
4_5.tiff	(135,88); (157,70)	(96,138)
4_6.tiff	(136,130); (158,110)	(96,175)
7_5.tiff	(160,150)	(172,195)
7_6.tiff	(190,118)	(199,167)
7_7.tiff	(162,179)	(171,225)
12_1.tiff	(139,190)	(180,210)
12_4.tiff	(120,155)	(159,179)
12_6.tiff	(124,212)	(163,234)

This directory also has files in MAT format. These files contain information about minutiae points. The file numbering is similar to the file numbering for the corresponding images. Each MAT-file contains a matrix of size $N \times 3$, where N is the number of minutiae points. N differs from file to file. The matrix was entitled as `template*_*`, where the first '*' corresponds to the user number and the second '*' corresponds to the fingerprint copy number.

To load these files in MATLAB type the following sequence of commands:

```
>> load filename;           % for example, load 1_2;  
>> template*_*             % for example, template1_2  
>> size(template*_*)       % for example, size(template1_2)
```

To load images type the following commands:

```
>> A = imread('filename', 'tiff');  
>> imagesc(A)  
>> colormap gray
```