PC

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Component Based Face Detection for PC Camera

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PC

.   (edge)

,   ,   (template   matching),   (Neural   Network),
PCA(Principal Component Analysis), LDA(Linear Discriminant Analysis)

,   (,
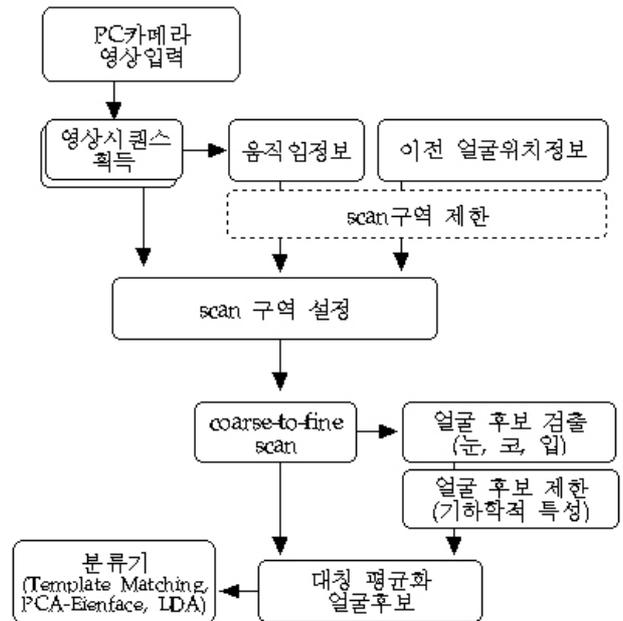), gamma correction, log transform   .

.   PC

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Keyword :   ,   ,

1.

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PC

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(template   matching),   ,

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,   ,   (Neural   Network)

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,   ,

PC

PC

·   /   ,

·   PC

64× 64   256
× 256

,   ,   ,

그림 1

2.

2-1.   **2-2.**

PC   352× 288
24bit   .   Sample

1   .   2

PC   352× 288   Sample
            coarse-to-fine   16× 16   .   2
window   .

.

,

coarse-to-fine   .

            sample   16
× 16   . 352× 288

                                    16× 16
window   .   **그림 2   Sample**
    16× 16   352× 288

2-3.

,   ,

,

3   6   .

.

(,

,   )   .

.

scan 구역 설정

입력 이미지 → 눈, 코, 입
후보 검출

얼굴 후보 제한
(기하학적 특성)

5

5

3

,   ,   .   6   5

,   ,   ,   7

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,   ,   4

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6

4

7

2-4.

7

.   8   .

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5

그림 8 ...

III-866 MHz PC ... Visual-
C++ ... .

CMOS ... USB-PC

... .

... .
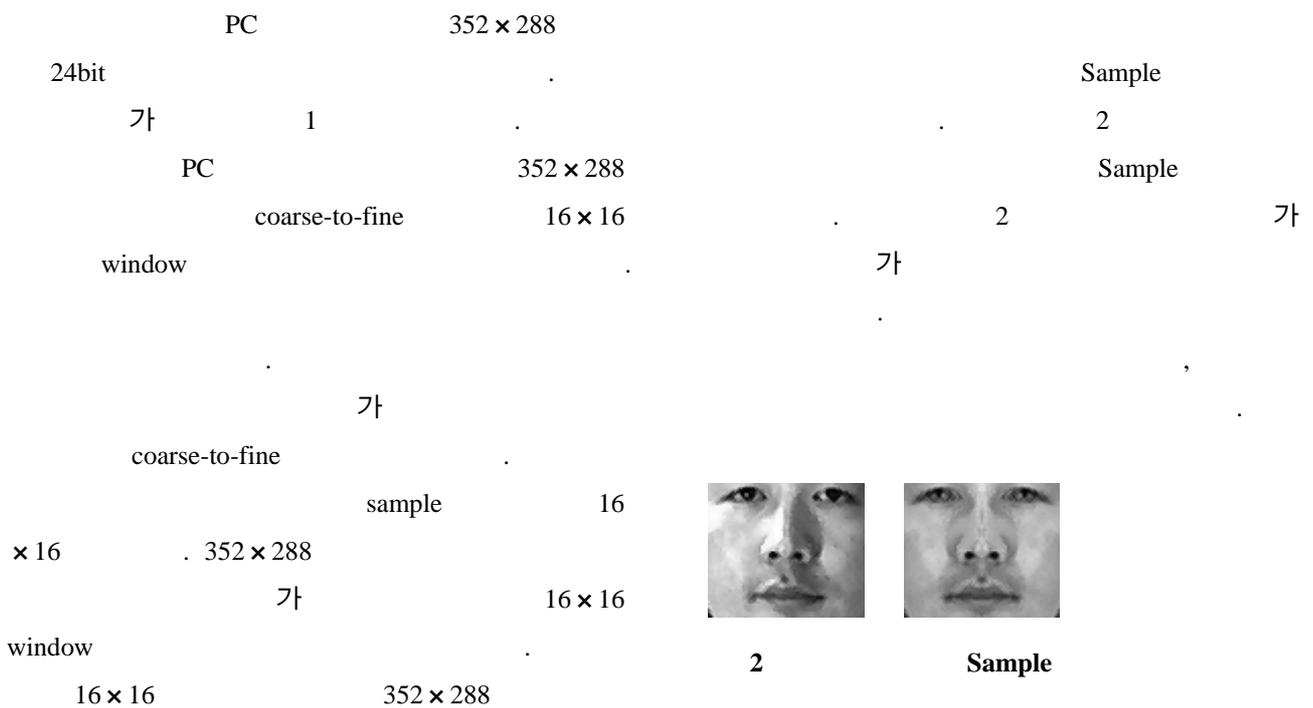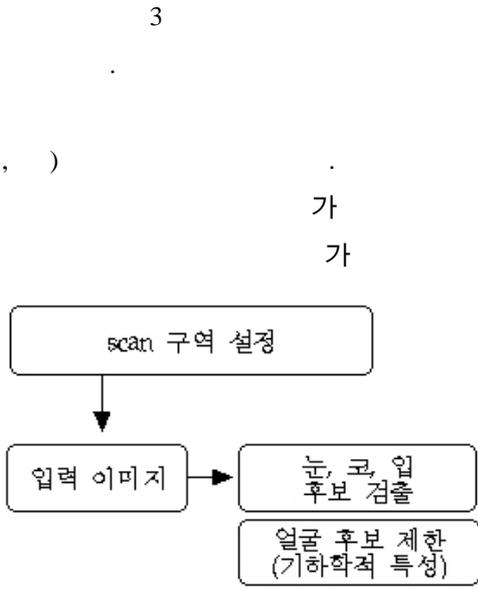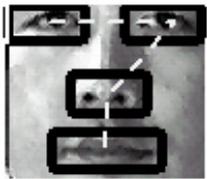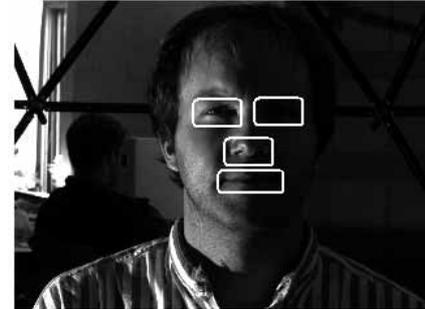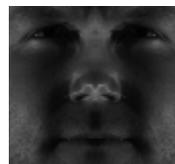
coarse-to-fine

... .

... . scan window ... , gamma
correction(g=1.2), Zero-mean

10

(template matching),

PCA ... .

2-3 ...

그림 10 ... 1

... .

scan window

candidate region

그림 9 coarse-to-fine

PC

그림 11 ... 2
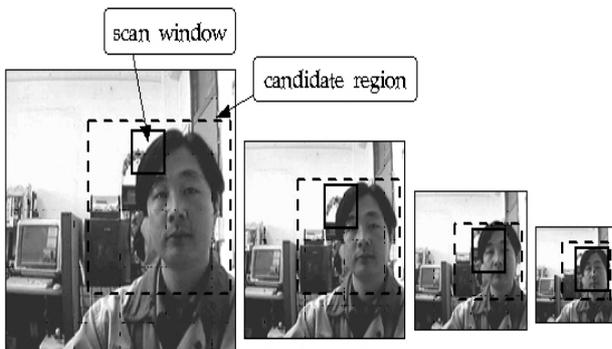
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