**MATLAB CODE LICENSE PLATE RECOGNITION**

[FileName,PathName] = uigetfile('\*.jpg;\*.png;\*.gif;\*.tif','Select an image'); i=imread(strcat(PathName,FileName)); i1=rgb2gray(i)

figure(1)

imshow(i1)

t=graythresh(i1)

i2=im2bw(i1,t)

figure(2)

imshow(i2)

i3=medfilt2(i2)

figure(3)

imshow(i3)

SE=strel('rectangle',[3,3])

i4=imdilate(i3,SE)

figure(4)

imshow(i4)

i5=imerode(i3,SE)

figure(5)

imshow(i5)

i6=imsubtract(i4,i5)

figure(6)

imshow(i6)

i7=imclearborder(i6)

figure(7)

imshow(i7)

i8=imfill(i7,'holes')

figure(8)

imshow(i8)

i9=bwareaopen(i8,50,8)

figure(9)

imshow(i9)

i10=bwmorph(i9,'thin')

figure(10)

imshow(i10)

st = regionprops(i10, 'BoundingBox')

figure(11)

imshow(i10)

for k = 1 : length(st)

BB = st(k).BoundingBox

rectangle('Position', [BB(1),BB(2),BB(3),BB(4)],...

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'EdgeColor','g','LineWidth',2 )

end

A1 = imread('E:/template.jpg');

B1 = i10

A = A1(:,:,1);

B = B1(:,:,1);

figure,imagesc(B1);title('Target Image');colormap(gray);axis image

grayA = rgb2gray(A1);

Res = A;

Res(:,:,1)=grayA;

Res(:,:,2)=grayA;

Res(:,:,3)=grayA;

results=ocr(B1,'CharacterSet','ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789','TextLayout','Line');

results.Text