
```
function [BW,maskedImage] = segmentImage(X)
%segmentImage Segment image using auto-generated code from
    imageSegmenter App
% [BW,MASKEDIMAGE] = segmentImage(X) segments image X using auto-
generated
% code from the imageSegmenter App. The final segmentation is
    returned in
% BW, and a masked image is returned in MASKEDIMAGE.

% Auto-generated by imageSegmenter app on 10-Dec-2016
%-----

% Normalize input data to range in [0,1].
Xmin = min(X(:));
Xmax = max(X(:));
if isequal(Xmax,Xmin)
    X = 0*X;
else
    X = (X - Xmin) ./ (Xmax - Xmin);
end

% Threshold image - global threshold
BW = imbinarize(X);

% Fill holes
BW = imfill(BW, 'holes');

% Open mask with disk
radius = 6;
decomposition = 0;
se = strel('disk', radius, decomposition);
BW = imopen(BW, se);

% Close mask with disk
radius = 2;
decomposition = 0;
se = strel('disk', radius, decomposition);
BW = imclose(BW, se);

% Create masked image.
maskedImage = X;
maskedImage(~BW) = 0;
```

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