

Object Recognition Contest

- Students project IPCV Budapest 2006 -

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Procedure

Every group is asked to

- ▶ pick one object
- ▶ take at least 10 pictures of the object
- ▶ vary
 - ▶ distance / size
 - ▶ angles / orientation
 - ▶ illuminations
- ▶ send the archive of the images to *hans@uni-koblenz.de* at the beginning of the next week (monday august 28th)

Filenames

Name_D_A_I_N.jpg

- ▶ Name : Name of the object
- ▶ D: Distance, use 1 (close) – 9 (far)
- ▶ A: Angle, use 45° stepsize ($0 = 0^\circ$, $1 = 45^\circ$...)
- ▶ I: Illumination
 - ▶ 1 Outdoor
 - ▶ 2 Indoor
 - ▶ 3 Mixed / undefined
- ▶ N: Counting number (two digits), 01 – No. of pics

Examples

Name_D_A_I_N.jpg

- ▶ Pepper_1_0_1_01.jpg — means object pepper, closest view, from front, outdoor and 1st capture
- ▶ Pepper_5_2_1_02.jpg — means object pepper, middle distance, from 90° (sideview), outdoor and 2nd capture

Proposal to obtain the object

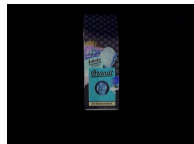
Background
image without
the object



Image
containing the
object



Difference-image



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Next step

Determine the
object-mask



×

Image
containing the
object



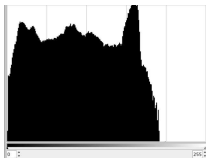
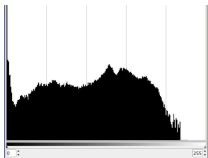
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Isolated object



A possible feature

Build histograms as one possible feature



Find (distance-) measures to compare the histograms

Evaluation on next friday

- ▶ A unknown but well defined set of images will be given to your solution.
- ▶ Detect the objects: which object is within the query-image
- ▶ Depending on the recognition rate there will be a ranking.
- ▶ Not (only) the best group will present their results.
To make shure that when you'll be in the mid- or end-field, you don't may lay back or get lazy.

Have fun!