

The Image Database and some Matlab Interface Functions

The Database:

There are two versions of the image database:

- 1) S:\TN\M\TNM025\2014\ImageDatabase\imdbMEDIUM
- 2) S:\TN\M\TNM025\2014\ImageDatabase\imdbSMALL

The image database consists of the same 5 000 images in two different sizes

The original images were provided by Matton AB in Stockholm who sells them on the website <http://www.matton.se>.

All images are watermarked.

Some Matlab Interface Functions

All files necessary for accessing the database are located in the directory
S:\TN\M\TNM025\2014\Matlab

Reading images is simple using imread as follows:

If you want to read image number `imagenumber` in the small version:

```
pathname = 'S:\TN\M\TNM025\2014\ImageDatabase\imdbSMALL';  
fstr = fullfile(pathname, [num2str(imagenumber), '.jpg'])  
I=imread(fstr);
```

and in the medium version replace SMALL with MEDIUM

There are two functions in the directory

```
function fh = dispimarray(imindexarray,figh,medium)
```

```
function [ret,fighandle]=dispclick(imindexarray,figh,medium)
```

figh is a handle to a figure and if medium begins with 'm' or 'M' then the medium sized versions will be used.

See the code to see what happens when you use the functions with less than three arguments.

dispimarray reads the images in the matrix `imindexarray` and displays them in the order given in the matrix in the figure

dispclick reads the images in the matrix `imindexarray`, displays them and returns the number of the image you click on first

Using these two functions you can display the result of the search and get the input for the next query image to search with.

There are three forms to use it: (where dispxxx is one of the two functions dispimarray and dispclick)

fh = dispxxx(imindexarray,figh,smtype)

fh = dispxxx (imindexarray,figh)

fh = dispxxx (imindexarray)

imindexarray is a matrix containing the image numbers to be displayed.

figh is the handle to the figure that was used

smtype gives the image type you want to use first character either 'm' or 'M'

uses medium sized images, default is the small image size

figh is the handle to an already existing figure if you want to reuse it instead of creating a new one as in the other two forms.

If you want to specify smtype but not figh use the form

dispxxx(imindexarray,[],smtype)