Pixel Pundit

The contest is divided into two categories and each category will have two levels. The details are as follows:

Category 1: For Engineering Students
Category 2: For Non-Engineering Students

Level 1: Moderate, for undergraduate participants
Level 2: Expert, for post-graduate and higher degrees. Undergraduates may also attempt this level.

Task: Category 1

In all the category and levels, participants are required to develop an algorithm which results into following images and automatically get saved at specified location on hard drive.

- A binary mask image for the given image, where object(s) of interest are given white color on a black background. (File name: ImageName_Mask.ImageFormat)
- A binary boundary mask image for the given image, where the boundary of object(s) of interest is given white color on a black background. (File name: ImageName_Boundary.ImageFormat)
- An image in which boundary of object(s) of interest is plotted/highlighted in GREEN on original image. (File name: ImageName_BoundaryPlot.ImageFormat)
- A *.txt file having list of all the image names, number of objects of interest and processing time on that image. i.e. Content of *.txt file must look like ImageName1–Num_Of_Object–Processing_Time (in ms), with one line of this type for each image. (File name: ParticipantName_Count_Time.txt)

Participants are also required to submit a block diagram of developed algorithm in a *.docx file. (File name: ParticipantName_BlockDiagram.docx)

All the engineering participants (Category 1) should submit all the MATLAB code files (*.m), block diagram document and *.txt file in Level_ParticipantName_MobileNumber.zip file (There is no need to send the generated result images, as the developed algorithm will be tested on an extended dataset locally where the results will be analyzed by experts).

The script/developed algorithm should be written in such a way that it can read all the files of a specific image format (*jpeg, *.bmp, *.png, etc.) from a given folder without bothering about the name of files and the required results (3 images and a text file) must get saved in the newly created folder. (Use Folder name: Level_Name-of-participant_MobileNumber) and the location of the folder is specified below. It is recommended that all the participants to use following directory structure while developing their algorithm.

Keep input images at: “D:\Pravega\Zeiss\LevelX\(All given images)”

Output should go at: “D:\Pravega\Zeiss\LevelX\Level_Name_MobileNo\(All the generated images and file with the name specified above)”.

Task: Category 2

Participants in this category are expected to give a script generated by ImageJ (freeware) which has the ability to read the set of images and save them in the same directory structure and style as mentioned above.

Image Files

As per level, different set of images will be given to the participants. These images will be provided by Zeiss, and are available at these links: Moderate and Expert.

Deadline: January 15th, 2014.

Mail your submissions to submissions@pravega.org
with subject "Pixel Pundit Submission".

Best of Luck!

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