Catheter Alert Project annotation code readme

Update version - C:\python\PycharmProjects\annot5 do not use annot6

1. Convert the DICOM clip into images

C:\python\PycharmProjects\dicom\_convert

* 1. System command to convert the DICOM

Under ‘dcmtk-3.6.7-win64-dynamic/bin’, there is a system command (EXE) dcm2pnm.exe to convert DICOM clips(files). We use it in our program “dicom2imgs”.

* 1. **dicom2imgs.py**

python script uses the sys command to convert the file.

get\_dicom\_files(folder) - Get the DICOM files from a relative folder (ex ./data)

convert\_2\_folder(file) – get the files from the folder, and create a folder with the same name for each file. Generate the sys command with folder and file parameters

* 1. DICOM data and output images

The DICOM files located in C:\python\PycharmProjects\dicom\_convert\dicom\_2\_imgs\data

The images are generated under the same folder.

1. Write the images file names into an excel file (the annotation will use this excel file)

C:\python\PycharmProjects\annot5

* 1. **to excel.py**

the parameters are:

example: to excel.py --root\_dir cat1data\\ --excel\_file cat1data\\cat1.xlsx

* 1. Creates the excel with the file name the x1,y1 x2,y2 column for the bounding box and the label for the annotation – these columns will be used later in the annot\_tool.py.

1. Annotates the images with labels and region

C:\python\PycharmProjects\annot5

* 1. **annot\_tool.py**

the parameters are:

annot\_tool --excel\_file "./cat1data/cat1.xlsx" --root\_images\_dir "./cat1data//"

uses the excel file to read all the images one by one and write the labels and the region into the same excel file.

* 1. Keyboard commands:

0 – NOT OK

1-roofing

2-wire

3- deep Intubation

4-Normal

<enter> process (write to excel) and move to the next image

Mouse left click (creates the region) – 2 clicks.

1. Create exe from **annot\_tool.py -> annot\_tool.exe**

**Note: use pyinstaller via pycharm terminal and not via CMD**

* 1. Use - pyinstaller --onefile annot\_tool.py

The exe located under <dist> folder

* 1. Run - .\dist\annot\_tool.exe --excel\_file "./cat1data/cat1.xlsx" --root\_images\_dir "./cat1data//"