Anonymizer of Dicom Image

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1 What is it?

This bash program anonymizes dicom images for Medical application. You choose a anonymous name and id and anonymize all the dicom and vxp files for that patient.

2 How install it

This application calls a perl progam, Posda.pl. Be sure perl is installed on your machine. The following code installs the dicom code contained in anonymizeDicomRpm.

```
cd home
mkdir anonymizeDicomRpm
cd anonymizeDicomRPM
tar -xvf anonymizeDicomRPM.tar
chmod +x Posda/bin/*
chmod +x anonymize/*
export PERL5LIB=$HOME/dicom/Posda/include:$PERL5LIB
export PATH=$PATH:$HOME/anonymiseDicomRpm/Posda/bin
```

3 How use it

All the dicom image and the vxp files for the same patient must be contained in the same directory.

```
cd anonymizeDicomRpm
cd anonymize
./anonymizeDicomRpm.sh <input directory> <output directory> <new_id> <new_name>
```

A directory will be created with all the new dicom files. The name of this new one would be the new id.

4 Example

We used this script for a patient and anonymized all dicoms images. In the directory example, there are two headers of dicom images. The first one was before and the second one after the anonymizer (Follow text). The anonymous name was bond and the id 15061986. There are also screenshots about it with ImMap (Figure 1 and 2).

Header before anonimized

```
(0010,0010) PN [Roberts^Maria]
                                                           14, 1 PatientsName
(0010,0020) LO [1628958/9]
                                                            10, 1 PatientID
(0010,0030) DA [19360101]
                                                             8, 1 PatientsBirthDate
(0010,0040) CS [F]
                                                             2, 1 PatientsSex
(0010,1010) AS [072Y]
                                                             4, 1 PatientsAge
(0010,21b0) LT (no value available)
                                                             0, 0 AdditionalPatientHistory
(0018,0000) UL 336
                                                             4, 1 AcquisitionGroupLength
(0018,0022) CS [CINE MODE]
                                                            10, 1 ScanOptions
```

Header after anonimized

```
      (0010,0010) PN [bond]
      # 4, 1 PatientsName

      (0010,0020) L0 [15061986]
      # 8, 1 PatientID

      (0010,0030) DA [09112001]
      # 0, 0 PatientsBirthDate

      (0010,0040) CS [F]
      # 2, 1 PatientsSex

      (0010,1010) AS [072Y]
      # 4, 1 PatientsAge

      (0010,21b0) LT (no value available)
      # 0, 0 AdditionalPatientHistory

      (0012,0062) CS [YES]
      # 4, 1 PatientIdentifyRemoved
```

5 Acknowledgements

This program was created in Sci Institue. I would like to thanks Dr Sarang and all his team Dr Sarah Geneser and Jacob Hinkle. The follow script was created for The Hustman Cancer Institue in the University of Utah in Salt Lake city. Thanks very well for all the help during this project for all the team of Dr Brian.

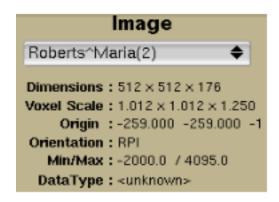


Figure 1: ImMap before anonymized

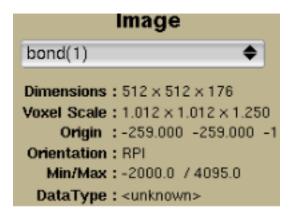


Figure 2: ImMap after anonymized