User Manual: DefaceMRI

Welcome to the DefaceMRI User Manual. This guide will walk you through the steps to prepare your data and use the pipeline to anonymise and deface DICOM images.

# Preparing Your Data

Before using the software, it's essential to ensure your data is properly organised. Follow these steps to prepare your DICOM files for defacing:

1. Organise DICOM Files: Create a new folder and transfer all the DICOM files you intend to deface. You can include subfolders but ensure all files within them are DICOM format.
2. Conversion to NIfTI: Run DefaceMRI and using “Select Directory” choose the folder you have all the DICOM files. Now simply press “Convert DICOM to NIfTI (Review NIfTI files before proceeding)”. This step is crucial for anonymising metadata and compatibility with the defacing process.
3. Selecting Scans for Defacing: Review the converted NIfTI files and decide which scans require defacing. Delete any unnecessary files. Keeping in mind that FLAIR scans are not compatible. Failure to remove unnecessary files can cause significant delays or even errors that stop the script execution. Moreover, sometimes reports are saved as DICOM images, these should be removed as they can contain sensitive information and will cause errors in the defacing process.
4. Defacing NIfTI: Assume the selected directory remains the same, execute the code by clicking “Run” to deface the NIfTI files.
5. Converting back to DICOM: This step is typically done automatically within the unless you select otherwise from the options in the graphical use interface. Note that only files with the suffix “\_defaced.nii.gz” will be converted back to DICOM.

# Using the Software

To execute the scripts of the pipeline, follow these steps:

1. Launch DefaceMRI: In the folder DefaceMRI, double click the file DefaceMRI.
2. Select Directory: Within the pop-up window, click on “Select Directory” to choose the folder containing your DICOM or NIfTI files. After conversion there are additional options to toggle – “Deface NIfTI” and “Convert back to DICOM”. Choose according to your requirements.
3. Convert to NIfTI: Clicking “Convert DICOM to NIfTI (Review NIfTI files before proceeding)” will immediately execute the code to convert the files.
4. Execute Operation: After selecting the directory, initiate the operation by clicking “Run”. The software will proceed with defacing, depending on the selected options.

Should you encounter any difficulties or have further questions, please don’t hesitate to contact me for assistance. Happy defacing!

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