Guide to installing and running the petkm_fdg_deploy interface

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Files needed

1. **petkm_fdg_deploy.exe** (the interface).
2. **p01824dynfdg_data.mat** (dynamic PET image file of a normal brain with FDG, having 47 slices and 26 time frames).
3. **bc_original.txt** (manually sampled plasma input function).
4. **MCRInstaller.exe** (Matlab installer from R2015b to use the interface without Mathworks license. See also https://www.mathworks.com/products/compiler/matlab-runtime.html).

1- Install Matlab tools by a double click on **MCRInstaller.exe**. In some cases where eventually another version of Matlab is installed, the path to MCRInstaller should be added to Windows path (Please see https://www.mathworks.com/help/compiler/install-the-matlab-runtime.html).

2- To run the interface, double-click **petkm_fdg_deploy.exe** (Fig.1).

3- **Load File**: select **p01824dynfdg_data.mat**. The interface uses only mat files.

4- **Modify_Frame**: enter the desired frame to display or enter a set of frames to be averaged as n1:n2.

5- **Draw ROIs**: use the image in the fourth axes from dynamic or static image. Keep left mouse pressed all the time. Use zoom-on-out if needed. it creates time-activity curves (TACs).

6- **View ROIs**: displays image in the fourth axes, applies the desired ROIs, and creates TACs.

7- **Make_TAC_list**: groups TACs file names in a text file **listfiles.dat**. Add or remove TACs in this file.

8- **SUV**: from a single static image TAC, or from a dynamic image TAC by choosing a single frame or a set (n1:n2) of frames. Use **listfiles.dat** as input. The results are in **listfiles_par.txt**.

9- **Kinetic Modeling**: applies 3 compartment-model of FDG. Use **listfiles.dat** as input. The results are in **listfiles_par.txt**. The fits are in tissue tac ***fit.txt**.

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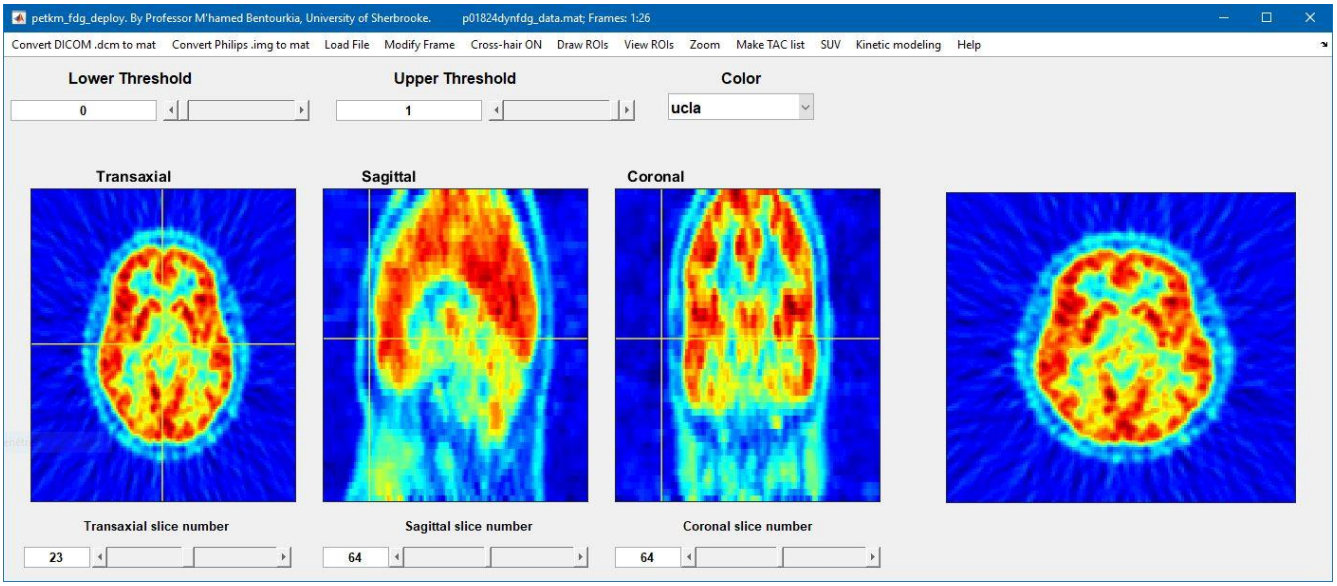

Fig. 1. Interface.