

OSL DOWNLOAD

1. Downloading OSL
 - a. On your local computer, open the command prompt and navigate to a suitable directory.
 - b. Type: `curl -O "https://users.fmrib.ox.ac.uk/~jhadida/osl/osl.tar.gz"`
 - c. Type: `curl -O "https://users.fmrib.ox.ac.uk/~jhadida/osl/release_supplements.tar.gz"`
 - d. Once these files are downloaded, then use the file in system to upload them into your virtual machine
 - e. From the Linux virtual machine, navigate to the directory where the files are stored and place them in a suitable directory such as `/Documents/MATLAB` (You will probably want to change your directory to your P drive otherwise files will be lost)
 - f. Type: `tar xzf osl.tar.gz`
 - g. Type: `tar xzf release_supplements.tar.gz --strip-components=1 --directory=osl`
 - h. This should create a folder called `osl`
2. Configure OSL
 - a. Open Matlab
 - b. Navigate to the subfolder `osl/osl-core`
 - c. Type in Matlab `osl_startup`
 - d. A file called `osl.conf` will be created in the `osl` folder and should look like this:
`FSLDIR = /usr/local/fsl`
`FSLBIN = /usr/local/fsl/bin`
`FSLLIB = /usr/local/fsl/lib`
`WORKBENCH =`
`SPMDIR =`
 - e. Add the location of the `spm` directory
 - i. `Spm` comes downloaded with `osl` and can be found in the `osl` folder
 - ii. Add `SPMDIR = /home/YOURUSERNAME/Documents/MATLAB/osl/spm12`
3. Start OSL
 - a. In Matlab, in the `osl` folder, type `osl_startup` to use `osl`

For compatibility reasons, OSL includes its own copy of SPM12 and Fieldtrip. Both come with Mex files that are pre-compiled, but if you run into errors, you might need to re-compile them manually your machine:

```
cd /home/YOURUSERNAME/Documents/MATLAB/osl/spm12/src
make distclean
make && make install
make external-distclean
make external && make external-install
```

If you wish to use your own versions of these packages as part of your analysis pipeline, you cannot simultaneously use OSL. However, you can always restore your Matlab path after using OSL by calling `osl_shutdown`. For example, if you have a pipeline that uses OSL for preprocessing and Fieldtrip for analysis:

```
run osl_startup to use OSL,
perform your preprocessing,
then run osl_shutdown and continue as normal.
```

To use your own SPM package, then download it, and change the location of the `spm` directory in the `osl.conf` file (See 2.d/2.e)

SPM DOWNLOAD

1. Downloading SPM
 - a. Download the SPM12.zip package from <https://www.fil.ion.ucl.ac.uk/spm/software/download/> on your local computer
 - b. Use the file in system to upload this file to your virtual Linux machine
 - c. Open the terminal and navigate to the folder where this zip is located
 - d. Type: `unzip spm12.zip`
 - e. Type: `unzip -o spm12_updates_rxxxx.zip -d spm12`
2. Configure SPM
 - a. Start matlab and add SPM into your path
File > Set Path > Add Folder
Or by typing `addpath /home/username/spm12`
3. Compilation
 - a. In a terminal, from the src folder of the SPM12 folder type:
`cd /home/login/spm12/src`
`make distclean`
`make && make install`
`make external-distclean`
`make external && make external-install`