

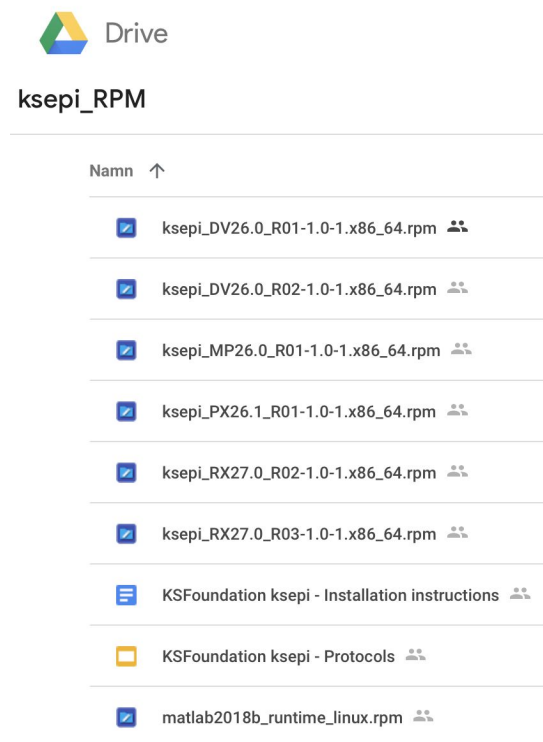
ksepi RPM installation instructions

The ksepi sequence supports the following

- Diffusion MRI
- fMRI (no Brainwave support)
- SWI 3D-EPI
- T1w 3D-EPI

1. Download the RPM files from:

http://bit.ly/ksepi_RPM (where you found this document)



You need to download the one **ksepi*-1.0.1.x86_64.rpm** file corresponding to the version of your MR system (release 26 and 27 are supported). MP26 is for PET/MR, PX26 is for Pioneer, and RX is for SIGNA Premier systems. Type 'whatRev' in a terminal of the MR scanner to make sure.

Also, you need to download the **matlab2018b_runtime_linux.rpm**.

2. Copy the two RPM files to the MR scanner

In this example to: /usr/g/mrraw/

```
you@computer> scp mat*.rpm ksepi*rpm mrscanner:/usr/g/mrraw/
```

3. Install ksepi psd and recon & Matlab runtime

```
{sdc@mrhost}[] cd /usr/g/mrraw
```

```
{sdc@mrhost}[] su  
password = operator
```

```
[sdc@mrhost mrraw]# rpm -i ksepi*.rpm
```

This will install the following files in /export/home/sdc/ksepi

- /export/home/sdc/ksepi/data*
- /export/home/sdc/ksepi/psd/ksepi*
- /export/home/sdc/ksepi/psd/ksepi.psd.ice*
- /export/home/sdc/ksepi/recon/mkdir_vre_ksepi*
- /export/home/sdc/ksepi/recon/recon_epi*
- /export/home/sdc/ksepi/recon/recon_epi.sh*
- /export/home/sdc/ksepi/recon/recon_epi_live.sh*
- /export/home/sdc/ksepi/recon/runtimeversion.txt*
- /usr/g/bin/ksepi-vre -> /export/home/sdc/ksepi/psd/ksepi*
- /usr/g/bin/ksepi-vre.psd.ice -> /export/home/sdc/ksepi/psd/ksepi.psd.ice*
- /usr/g/bin/ksepi-vre.psd.mgd -> /export/home/sdc/ksepi/psd/ksepi.psd.mgd*
- /usr/g/bin/recon961 -> /export/home/sdc/ksepi/recon/recon_epi_live.sh*

```
[sdc@mrhost mrraw]# rpm -i mat*.rpm
```

This will install the Matlab2018b runtime environment in
/export/home/sdc/MATLAB/matlab2018b_runtime_linux

In summary

<i>/export/home/sdc/ksepi/</i> psd	The pulse sequence directory
<i>/export/home/sdc/ksepi/</i> recon	The directory containing recon executables
<i>/export/home/sdc/ksepi/</i> data	Empty directory storing the log files, temp files and DICOMs for the 5 last ksepi scans
<i>/export/home/sdc/</i> MATLAB/	The Matlab runtime environment (needed byksepi/recon/recon_epi)

4. Sequence selections

Diffusion MRI

Plane: Oblique Mode: 2D

Family:

- ☒ Echo Planar Imaging
- ☐ Fast Spin Echo
- ☐ Gradient Echo
- ☐ MNS
- ☐ Spin Echo
- ☐ Vascular

Pulse:

- ☒ DW EPI
- ☐ Flair EPI
- ☐ Gradient Echo EPI
- ☐ Spin Echo EPI

Imaging Option:

- ☐ None
- ☐ Acoustic Reduction
- ☒ Extended Dynamic Range
- ☐ IR Prepared
- ☐ Sequential
- ☐ ZIP512

PSD Name: ksepi-vre

T1w 3D-EPI and SWI 3D-EPI

Plane: Oblique Mode: 3D

Family:

- ☐ Fast Spin Echo
- ☒ Gradient Echo
- ☐ Vascular

Pulse:

- ☐ Fast GRE
- ☒ Fast SPGR
- ☐ Fiesta
- ☐ Fiesta-C
- ☐ GRE
- ☐ LAVA
- ☐ MERGE
- ☐ SPGR
- ☐ SWAN

Imaging Option:

- ☐ None
- ☒ ARC
- ☐ Acoustic Reduction
- ☒ Extended Dynamic Range
- ☐ Flow Compensation
- ☐ Multi-Phase
- ☐ Sequential
- ☐ ZIP512

PSD Name: ksepi-vre

5. Recon options

{sdc@mrhost}[] **gedit** /export/home/sdc/recon/**recon_epi_live.sh**

At the top of this file:

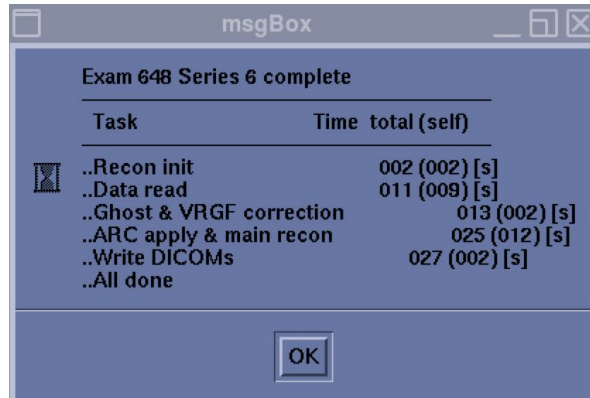
```
# Shorter VRE recon time for 2D diffusion (recon_epi.m->recon_2Ddep.m)
recon_epi_options="tempdata disk parpool 4 moco 1"

# Remove '#' to reduce stress on the VRE (slower VRE recon for 2D diffusion)
# recon_epi_options="tempdata disk parpool 0 moco 1"

# Number of previous exams to keep in /export/home/sdc/ksepi/data on the MR
Host. ScanArchive, logs and DICOMs are stored here after recon
number_exams_to_keep=5

# show popup? Set to 0 to turn off
show_popup=1
```

By default, after every finished reconstruction a popup window is shown



Make sure there is no white space before or after the '=' signs. Otherwise, recon will not work.