Pulseq and TOPPE demo

Welcome to the Pulseq demo session. During this session we will work together on several example pulse sequences (2D gradient echo, EPI, etc). Basic concepts will be presented on the big screen in front of the audience. Assuming sufficient Internet connectivity, there will be a possibility to run example and custom sequences on one of the two reserved scanners (3T Siemens Prisma in Freiburg and 3T GE Discovery MR750 at the University of Michigan) and collect and reconstruct the measured raw data.

There two ways to actively participate in the demo: either by using your own computer (recommended, requires a working Matlab installation) or via a remote desktop server.

Using your own computer (recommended)

You can use your own computer if you have Matlab installed. The necessary software (Pulseq, TOPPE and mapVBVD) can be downloaded from https://pulseq.github.io/ISMRM_2019_demo.zip . Please unzip the file somewhere on your local disk, open Matlab and navigate to the directory. Execute 'startup.m' in order to prepare all paths.

In order to submit your sequences you need to connect to the local PulseqDemo WiFi net (password is PulseqRulez!) and use the following upload page in your browser: http://10.42.0.1:8000 .

A shared Dropbox folder (https://bit.ly/2PQtkZi) gives you access to the acquired data. Example data are included in the 'data' folder of the .zip file. To reconstruct live acquired data, download the corresponding data set together with the *.seq fiel from the shared Dropbox folder into './data/siemens/' or './data/ge/'.

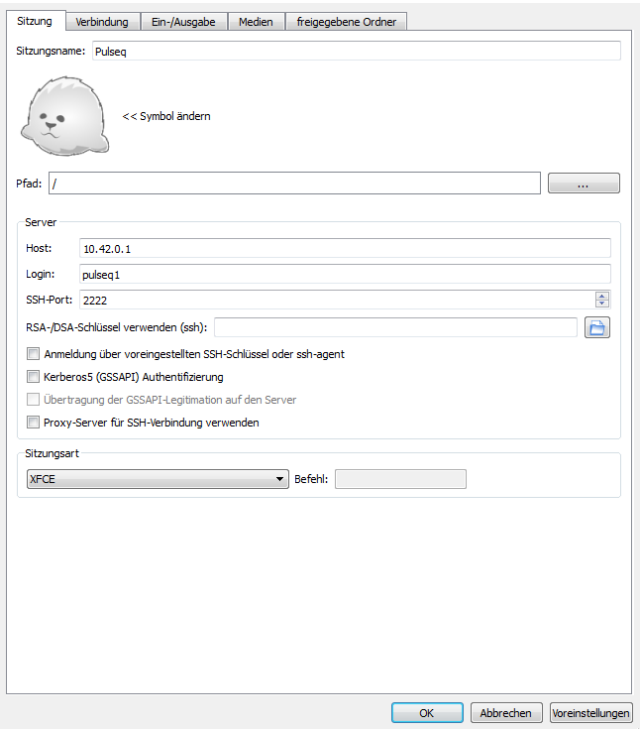
Using the remote desktop server and a local WiFi network

If you do not have Matlab on your computer, there are virtual machines with Matlab available which can be accessed via X2Go. Please install the X2Go client for your operating system which can be found here: https://wiki.x2go.org/doku.php/doc:installation:x2goclient

PLEASE INSTALL THE X2GO CLIENT NOW prior to moving over to the next step!

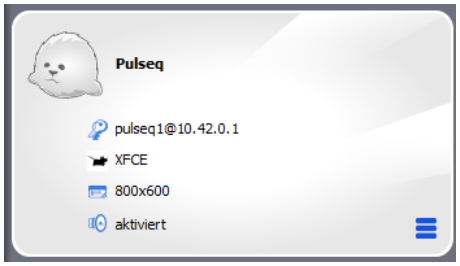
Connect to the local WiFi network named PulseqDemo (password: PulseqRulez!).

Start the X2GO client and in the upper left corner, click on the icon to create a new session.
(continue to the next page before hitting OK)

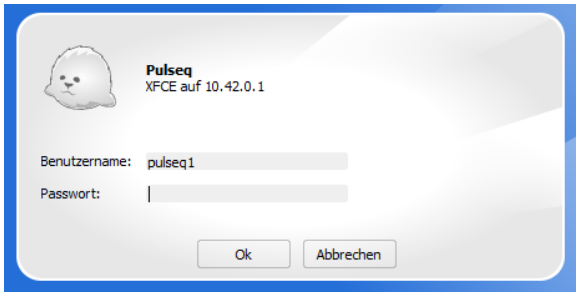


In the new window, enter 10.42.0.1 into the “Host” field, “2222” into the “SSH-Port” field, and the login name which you will get from Maxim Zaitsev into the “Login” field. Change the window manager to XFCE and press “OK”.

Click on the newly created configuration:



The X2GO UI will allow you to log in with the given credentials:



Once you hit “Ok” the session will start. Select “Use default config”.

A browser window and Matlab will automatically open. If Matlab or the Browser do not start automatically for some reason, the can be started manually via the desktop icons.

In order to submit your sequences please use the following upload page: http://10.42.0.1:8000 . Both the Dropbox folder and the upload page are automatically opened in the browser.

A shared Dropbox folder (https://bit.ly/2PQtkZi) gives you access to the acquired data. Example data are included in the ‘data’ folder of the .zip file. To reconstruct live acquired data, download the corresponding data set together with the *.seq file from the shared Dropbox folder into ‘~/data/siemens/’ or ‘~/data/ge/’.