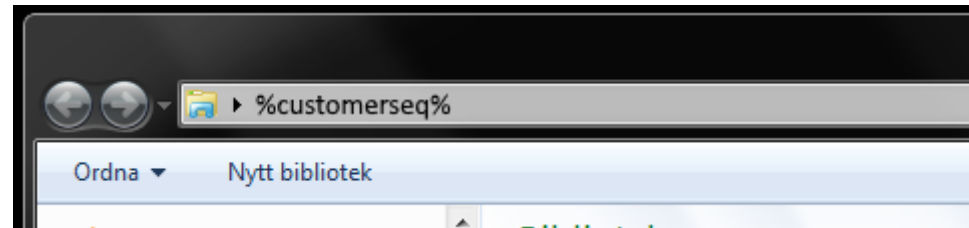# How to install external sequence at Siemens systems

Based on host IDEA version VE11

And FWF patch version 1.13 (and later)

Filip Szczepankiewicz, 2018-04-30

Copy the sequence files to %customerseq%

- Log in as advanced user. Normally by opening the start (press windows button, or Ctrl + Esc) and selecting "Advanced User"
  - Password is provided by Siemens

- Insert the media that contains the sequence files (USB stick). Copy the relevant files to the customer sequence folder
  - Usually, two files need to be copied (.dll and .so)
  - Acess the correct folder by typing %customerseq% in an explorer window and press enter.

Hint: It is likely that %customerseq% points to C:/Medcom/MriCustomer/seq/

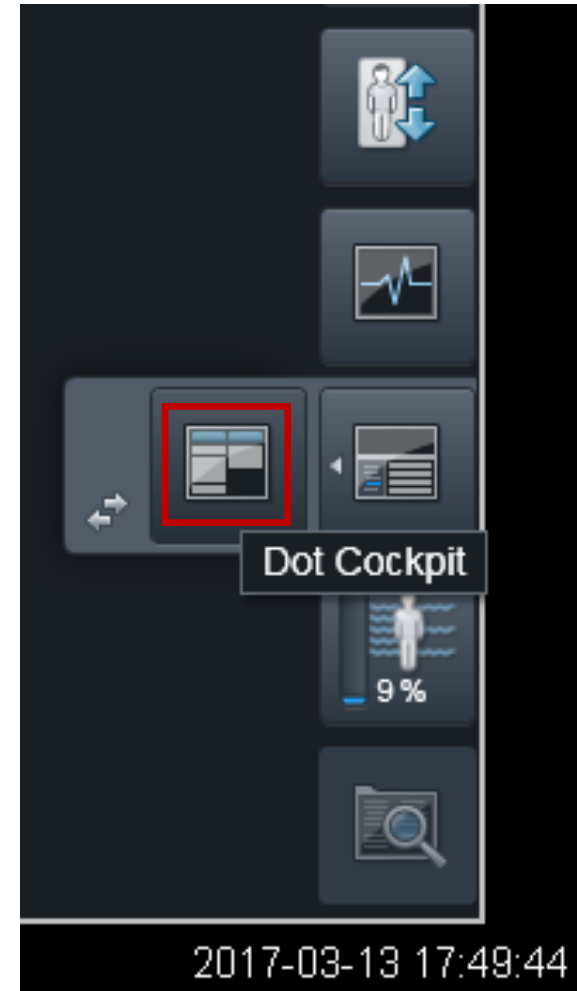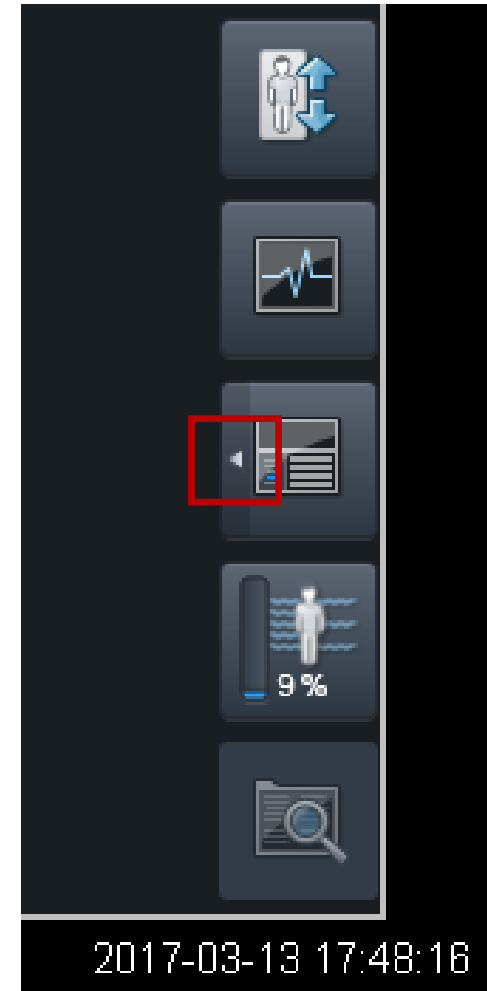# Create a valid waveform library (not applicable if you have "s" version)

- Create a common library folde where generic waveforms are stored
  - The path is: %customerseq%/FWF_Library/COMMON/
  - This folder should be populated by
    - FWF_OPTICUBE03.txt, FWF_OPTICUBE12.txt, FWF_OPTICUBE21.txt
    - For > V1.07 it also includes FWF_TRAPXXX.txt and FWF_BITRAPXXX.txt

- Insert your own waveforms in one of the study folders
  - The path is: %customerseq%/FWF_Library/STUDY_*/
    - The "*" can be 01, 02,... 20
  - In each study folder you can keep 16 pairs of waveform files
    - These are named: FWF_CUSTOM*_A.txt and FWF_CUSTOM*_B.txt
    - The "*" can be be 001, 002, ... 010
    - The _A and _B are played before and after the refocusing pulse

Hint: Don't modify waveform files that you do not own – it may ruin someone's setup.

Open the parameter editor

1. Click the little white arrow next to the dot cocpit icon
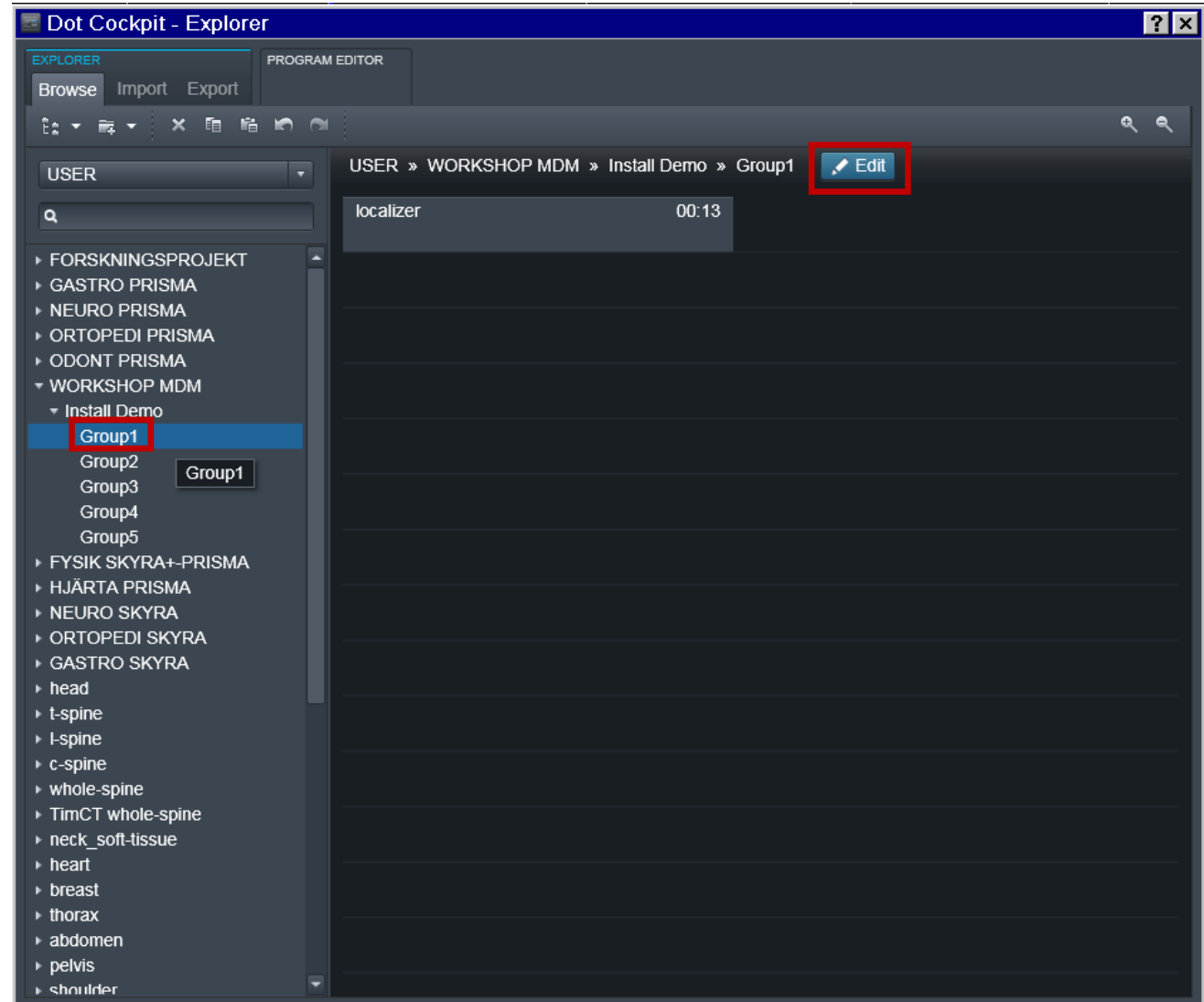   - The program editor icon should appear

2. Click theprogram editor icon

Tip: Sometimes the Dot Cocpit and the Program editor icons are switched. In that case, you don't need to click the white arrow to expand the menu.

2017-03-13 17:48:16

Dot Cockpit

2017-03-13 17:49:44
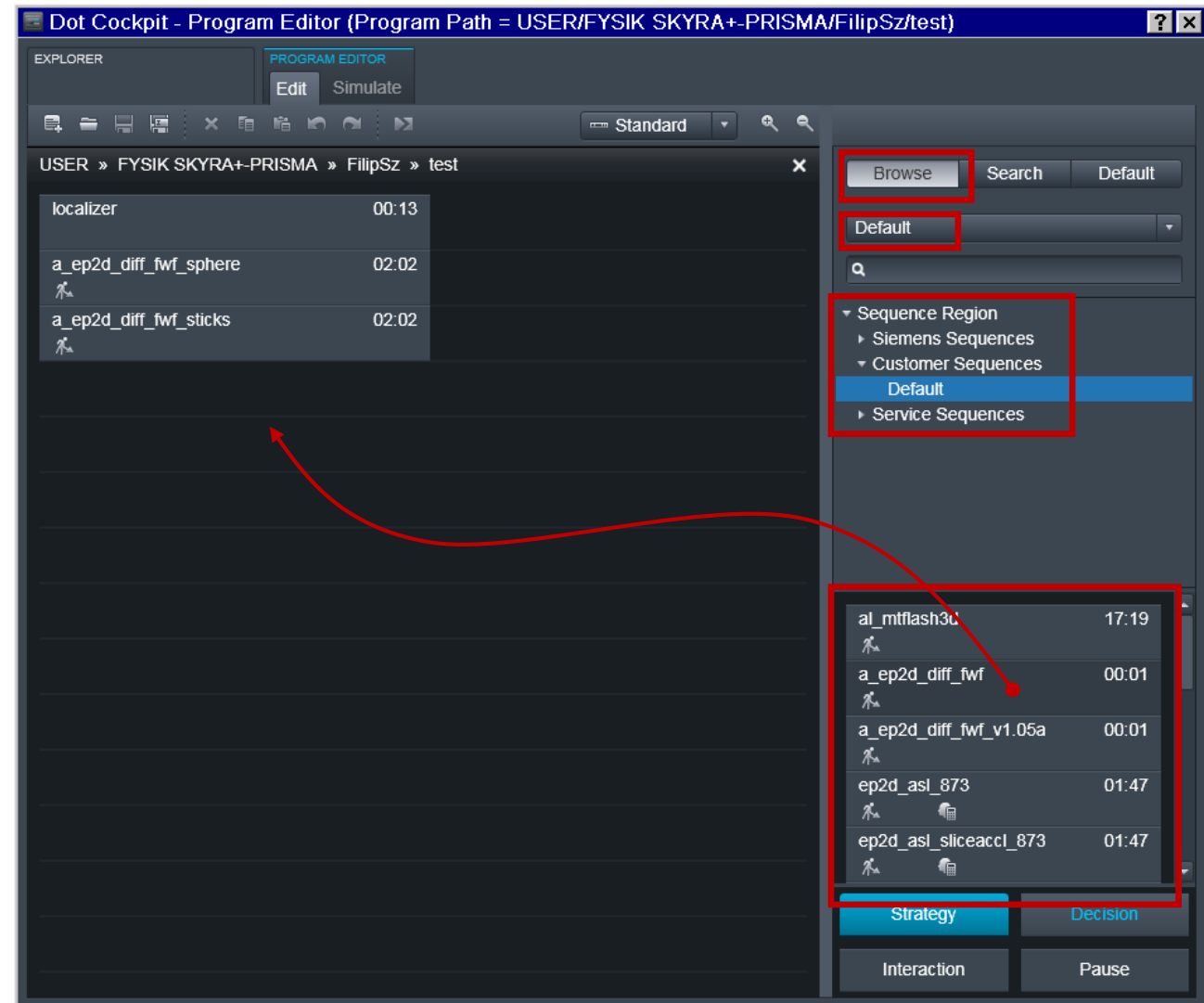
Select a work folder

1. Navigate to an appropriate folder, and select it by clicking its name
    -   We call this the "work folder"

2. Click the "Edit" button to enter the program editor

Tip: To insert sequences, you must be at the lowest level of the system tree. There are three levels. In the example these are: WORKSHOP MDM/Install Demo/Group1

Import the sequence from customer seq

1. Click the "Browse" tab

2. Select "Default" in drop down

3. In the list below, navigate to
   - Sequence Region
   - Customer Sequences
   - Default

4. The sequence appears in the list.

5. Drag-and-drop the appropriate sequence into the work folder
   - Only one object is moved this way, but both .dll and .so are installed by doing so.

Tip: If the sequence does not appear in the list, it may be compiled for the wrong software version.

The sequence is now imported!

- The imported exam card can now be used on the scanner

- Note that the standard settings are not meant to be used for actual imaging

- If you could not find the sequence in the previous step, it is possible that the sequence is incompatible with your system.