

## Monthly Meeting (November 2020)

Date: November 24, 2020

Time: 2:15pm - 3:29pm

Location: Park Seismic Office

Attendees:

In the office: Choon Park

Via Skype: Jin Park, Josefin Starkhammar, and Nils Ryden

### 1. Communication

- a. Communication between Team Sweden and Team USA has not been effective enough as much as we expected from the beginning of this project execution. Team USA will reserve designated time for more intense communication if Team Sweden provides a certain time window in advance from now on to discuss important topics such as upcoming joint-field test. The email communication will be discouraged.
- b. Slack will remain as the principal communication method. It is convenient for prompt responses but one needs to pay attention since it is easy to lose the communication between different communication threads. It is recommended to use a Hashtag instead of thread.

### 2. TDMS File

- a. Choon's frustration regarding TDMS file: TDMS conversion routine inside ParkSEIS-HMA (PS-HMA) software package uses the Labview 2018 runtime engine. Not completely knowing how the modules are working and having no control over LABview library functions, developing the conversion module took much longer time than anticipated, especially when it encountered TDMS files with different formats from Team Sweden. It needs to stick to one specific file format both teams agreed on this summer. Then, no further issue will occur.
- b. Capacity of ParkSEIS handling TDMS files on the new field laptop: ParkSEIS could handle up to 2,000 records of 48-ch data so far, but the program got hung on a desktop computer with Window 8 without no known reason. This still remains as an unsolved issue for the TDMS conversion in ParkSEIS-HMA software (PS-HMA). The field laptop runs on Windows 10 and never ran into such issue so far.

### 3. Joint Field Test (JFT)

- a. Josefin received the new field laptop with PS-HMA installed.
- b. A quick guide was included in the package for Josefin to test PS-HMA with PXI system to test if it works with Josefin's software.
- c. The first step is to assure the communication between PS-HMA and the PXI system so that a newly saved TDMS file is automatically detected by PS-HMA. A long conversation progressed that discussed how each TDMS file is collected

and saved in the PXI system, how it is registered inside a PXI folder, and how it is detected by PS-HMA, etc.

- d. Optimum structuring of a TDMS file has been discussed that will minimize any potential conflict between PS-HMA and the PXI system.
- e. It is discussed what kind of acquisition-related parameters should be posted as user-changeable parameters in PS-HMA, which will then be passed into the PXI system.
- f. Agreed that most of recording-related parameters should not be changeable by the user of PS-HMA and remain fixed or changeable only within the PXI acquisition software. Perhaps, the triggering level can be included in the PS-HMA.
- g. Discussed how the "ARM" command can be passed from PS-HMA to PXI system.
- h. Discussed how to make the PXI acquisition software automatically run as a startup program when the system is turned on.
- i. Discussed future structuring of PS-HMA in association with PXI acquisition software.
- j. The 1D acquisition system will be ready within next few weeks.
- k. Schedule about the lab test of PS-HMA and PXI system has been discussed.
- l. Schedule about the Joint Field Test (JFT) has been discussed. It will take place after the lab test is completed. It will consist of 1-2 times of field survey followed by a few days of tune-up period on both teams. The entire duration of the JFT may last 7-10 days.

#### **4. 1D Acquisition System Development**

- a. MEMS microphones purchasing issue (the first order scammed).
- b. MEMS triggering mechanism to be tested with regular gasoline car in the future.

#### **All Agreed:**

Both teams will prepare and implement those aforementioned tasks during next few weeks so that the JFT can take place within December.