KOALA DAQ Operation Manual

1. Login method & passwords
    a. ***Control room monitor server:***
        i. ***User name:*** *koala*
        ii. ***Password:*** *only4koala*
    b. ***DAQ server:*** *ssh -Y koala-daq*
    c. ***Online server:*** *ssh -Y koala-online*

2. Environment Setup:
   First log into one of the control room PC, then:
    a. Setup the running environment for DAQ:
        i. In **DAQ server terminal**, type command: **ems_setup**
    b. *Open DAQ GUI*:
        i. In **DAQ server terminal**, type command: ***ems_control***
    c. *Open Online program*:
        i. In **Online server terminal**, type command: ***ems_online***

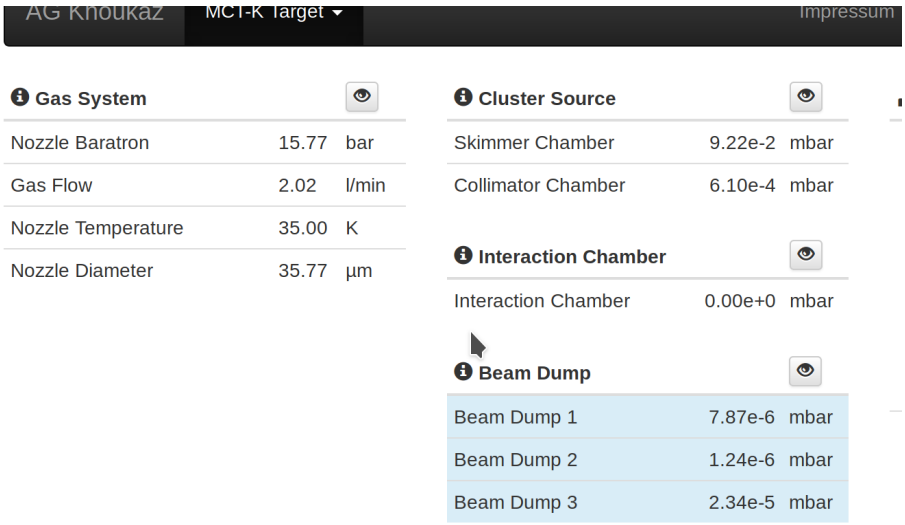
3. Data taking Operation (all in *ems_control* GUI):
   In each data taking, click the following buttons sequentially:
    a. **INIT**:
        i. to initialize the system
        ii. "**Init complete**" on the GUI log-window indicates successful initialization
        iii. **NOTE: START** only after a successful **INIT**
    b. **START:**
        i. to start the data taking run
        ii. A new data file will be created, the file name is shown under "**file name**"
        iii. **NOTE: START** must follow a successful **INIT**
    c. **STOP**:
        i. to stop the current data taking run
        ii. "**Stop of $run_nr complete**" on the GUI log-window indicates successful stop
        iii. The stopping process may take a while to release the resources (~60s)
        iv. **NOTE: INIT** the system only after a successful **STOP (i.e. wait ~60 seconds before re-INIT)**

4. In case of beam momentum changing, also change the associated filename prefix
    a. In DAQ server terminal, type: ***ems_ch_mom $new_momentum_value***
    b. In DAQ GUI, click menu: **"File" --> "Restor Setup"**
    c. Then, the normal data taking operation: **INIT --> START --> STOP**

KOALA Logging Check-List

1. **Date & Time**
2. **Beam condition**
    a. Momentum (ask COSY crew)
    b. Intensity (protons in COSY ring)
    c. Scaler values (from WebCam, ssh to koala-daq, run kamerka on terminal)

3. **Target condition**
    a. Remote desktop: (the curves should be stable)
    b. Gas System status: ***koalatarget.ikp.kfa-juelich.de***



4. **Detector condition**
    a. Sensor temperature (command line: ***lakeshore336*)**
    b. High voltage
        i. Recoil (command line: ***mpod***)
        ii. Fwd (command line: ***telnet 134.94.192.85 1527***)
    c. Vacuum level (IPcamera: ***http://134.94.192.148, name: admin, passwd: only4koala***)
    d. Oscilloscope remote access: xfreerdp -sec-nla /u:Tek_Local_Admin /p:only4koala /v:134.94.192.152:3389

5. **Data taking**
    a. Start & Stop time
    b. Run number
    c. File name
    d. Checking all the conditions above in the list