This page is deprecated (only valid for 2020 EHT observations).

Prerequists R2DBE

- Go through the setup instructions and verify that the system is up and running.
- Make sure that the modules have been initialized, grouped and labeled.

Prerequisits DBBC3

- Go through the system setup procedure for the DBBC3 and verify that the system is in a working condition.
- Make sure that pv-mark6-3 and pv-mark6-4 are up and running

System initialization

More detailed information can be found also on the EHT-wiki

Module initialization

ONLY IF REQUIRED: Initialise the modules using the following command. It has to be repeated separately for each Mark6 that has modules that need initialising (example below references the Mark6 using hostname '`recorder1`'). **This command will erase all existing data on the modules.** If you are unsure whether to initialise a set of modules, request guidance from AOC.

```
backendctl mark6 recorder1 modules 1,2,3,4 init-fresh
```

if the modules are still in "open" state they must be unmounted before

```
backendctl mark6 recorder1 group unmount
```

Repeat for all recorders

Configure the backends (R2DBE only)

```
backendctl whole configure
```

Configure the DBBC3

make sure the DBBC3 client is not running

```
cd /home/oper/rottmann/dbbc3/utilities
./setupDBBC3_OCT_D.py dbbc3 -n 4
```

Check signal routing

```
backendctl chain all check routing
```

Check time synchronization

```
backendctl chain all check timesync
```

Adjust power levels (R2DBE)

best: bring antenna to 45 deg elevation

Execute:

```
r2dbeview
```

This will bring up the r2dbe-monitor. Adjust the power by setting the BDC attenuators until the distribution matches the grey curve.

Obtain current BDC attenuator levels

```
backendctl bdc bdc1 get attn
```

To set the attenuators, e.g.:

backendctl bdc bdc1 set attn sbb_pol1_hi 4

Setting 2Bit Threshold (R2DBE)

```
backendctl r2dbe all run 2bit-cal all
```

Check in the r2dme monitor that 2-bit levels are OK (16/33/33/16)

Adjust power levels (DBBC3)

Basically low/high power levels should have been reported by setup script (see above).

In DBBC3 client:

check attenuators, e.g. for board A:

```
dbbcifa
```

attenuator settings should be within 20-40, agc should be on

if reported attenuator level is out of range 20-40 the IF power must be decreased/increased.

Do test recording

```
backendctl mark6 all run test-recording 20 30
```

Recording starts with a delay of 20 seconds. Visually check if all recorders are actually recording.

Load and execute the schedule

Scedules are located under `/srv/vexstore`

load the schedule that has been triggered by the AOC:

```
backendctl mark6 all schedule load trigger
```

Follow the schedule:

```
backendctl whole schedule follow trigger
```

Start logging of total power

```
nohup pwrlogger &
```

Start the Mark6 monitoring client

copy the vex file (e.g. from /srv/vexstore/trigger) to /home/oper/shared/schedules

```
vex2xml.py -f {vexfile} -s Pv
```

check the contents of the generated {schedule}.xml if it contains scans

```
m6schedulemon.py recorder1 {schedule}.xml  &
```

repeat for all recorders you want to monitor