Continuum => L-band => SARDARA

(v1 : 22/06/2017)

$: commands to insert in a shell
> : commands to insert in the operatorInput panel

Before observing

1) On nuraghe-mng :

   - Check that all of the 32 containers are active on ACS,
   - the active surface is green on AS,
   - the jlog is opened in order to track possible error messages,
   - the interface of the Meteo client is opened to check the wind velocity in real time (< 60 km/h).

2) On nuraghe-obs1 :

   - Check the presence of the 8 panels :
     - **operatorInput**
     - **AntennaBoss**
     - **GenericBackend**
     - **Mount**
     - **Observatory**
     - **Receivers**
     - **Scheduler**
     - **MinorServo**

   - Upload your shedule and check it :

     $ cd /archive/schedules/[projectID]
     $ scheduleChecker schedulename.scd

Start the observations

In the operatorInput panel :

1) Insert your project number

   > project=[projectID]

2) Initial setup

   > antennaReset

   > setupLLP

3) Select the receiver Mode :

> receiversMode=[mode]

> ➢ receiversMode=XXC1
> ➢ receiversMode=XXC2
> ➢ receiversMode=XXC3
> ➢ receiversMode=XXC4
> ➢ receiversMode=XXC5
> ➢ receiversMode=XXL1
> ➢ receiversMode=XXL2
> ➢ receiversMode=XXL3
> ➢ receiversMode=XXL4
> ➢ receiversMode=XXL5

C is for Circular, L for Linear polarization
1 : all band, 1300-1800 MHz (no filter)
2 : 1320-1780 MHz
3 : 1350-1450 MHz
4 : 1300-1800 MHz (band-pass)
5 : 1625-1715 MHz

4) Select the active surface shape (Parabolic for L-band observations)

> asSetup=P

5) Insert the Local Oscillator value (in MHz)

> setLO=[freq]

6) Select and configure the SARDARA backend in L-band

> chooseBackend=BACKENDS/Sardara

> initialize=SL00

7) Set the different parameters :

> setSection=[sect],[startFreq],[bw],[num-feed],[polarization], [sampleRate], [bin]

with : [sect]=0 in full-stokes observations and [sect]=0,1 in non full-stokes observations ;
[startFreq] corresponds to the initial frequency in Mhz from the LO value ;
[bw] the bandwidth in MHz ;
[num-feed] the number of feed : 1 in L-band
[polarization] the polarization mode
[sampleRate] in MHz
[bin] the frequency channels (1024, 2048, 4096, 8192, 16384)

8) Choose the integration time in ms (e.g. n=10 corresponds to 100 spectra/sec)

> integration=[n]

9) Attenuate the signal based on the rms range [-128 ;128] and check the value on the interface.

> getrms

> setAttenuation=[sect],[att]   with [att] the attenuation from 0 to 15 dB.

10) Check the tsys (typical values)

> tsys

11) Begin the schedule by indicating the start scan [N] or subscan [N_n] in the SCD file :

> startSchedule=[projectID]/[schedulename].scd,[N]

During the observations

1) On nuraghe-obs2, check that the data are written in your project section :

$ cd /archive/data/[projectID]/   ??? (A. Melis)

2) Quick-look of the data :

TBD (A. Melis)

At the end of the observations

1) Stop the schedule

> stopSchedule   or   > haltSchedule

2) Park the minor servo, active surface and antenna

> goTo=180d,89d
> servoPark
> asPark
> antennaPark

Download the data

$ scp -r observer@dorian:/raid/roach2/* .

$ scp -r [projectID]@nuraghe-obs2:/archive/data/[projectID]/* .   ??? (A. Melis)