**Continuum =>  K-band => SARDARA**

(v1 : 23/06/2017)

$ : 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 (< 40 km/h to guarantee a good pointing of the antenna in K-band).

1. 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]

1. Initial setup

> antennaReset

> setupKKG

1. Select the active surface shape (Shaped configuration for K-band observations)

> asSetup=S

1. Insert the Local Oscillator value (in MHz)

> setLO=[freq]

1. Select and configure the SARDARA backend in K-band

> chooseBackend=BACKENDS/Sardara

> initialize=[code]

with [code]=SK00 : central feed only

[code]=SK77 : 7 feeds

[code]=SK03 : feeds 0 and 3 only

[code]=SK06 : feeds 0 and 6 only

1. Set the different parameters of the backend:

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

with : [sect]=0,1,2,3,4,5,6 in full-Stokes observations

and [sect]=0,1,2,3,4,5,6,7,8,9,0,11,12,13 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 feeds (from 1 to 7)

[polarization] the polarization mode

[sampleRate] in MHz

[bin] the frequency channels (1024, 2048, 4096, 8192, 16384)

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

> integration=[n]

1. If you want to use the multi-feed derotator to prevent field rotation during long acquisition, select the derotator configuration :

> derotatorSetConfiguration=[config] with [config]=BSC, CUSTOM or FIXED

* BSC is for Best Coverage Space (automatic rotation of the dewar in order to best cover the scanned area)
* CUSTOM : the user has to choose the angle of the dewar axis with the y-axis of the scanning frame that will be kept during the whole duration of the acquisition :

> derotatorSetPosition=[ang]d with [ang] the dewar angle in degrees

* FIXED : the dewar keeps a fixed postion w.r.t the horizon, no rotation is applied. To specify a static angle :

> derotatorSetPosition=[ang]d with [ang] the dewar angle in degrees

To read back the position of the dewar :

> derotatorGetPosition

1. 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.

1. Check the tsys (typical values)

> tsys

1. 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)

1. Quick-look of the data :

TBD (A. Melis)

**At the end of the observations**

1. Stop the schedule

> stopSchedule or > haltSchedule

1. 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)