**Continuum =>  K-band => Total Power**

(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 the Total Power backend

> chooseBackend=BACKENDS/TotalPower

1. For each section [sect], insert the bandwidth ([bw]=300, 730, 1250 or 2000 MHz) and the sample rate (in MHz) :

> setSection=[sect],\*, [bw],\*,\*,[sampleRate],\*

Reminder : in K-band, 7 feeds so 14 sections with [sect]=0,1,2,3,4,5,6,7,8,9,10,11,12,13.

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. Put the antenna at 45° of elevation and attenuate the signal for the 14 sections in order to obtain values between 750 and 1100 counts (linear range of the backend) :

> goTo=\*,45d

> getTpi

> setAttenuation=[sect],[att] with [att] between 0 and 15 dB

> getTpi

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]/

1. Quick-look of the data :

$ idl

IDL> .r fitslook

IDL> fitslook

**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 [projectID]@nuraghe-obs2:/archive/data/[projectID]/\* .