

The data for v189a should be recorded to the first of the new sets of xraids (7 x 500 GB)

Data being recorded to first set of Xraid disks as labeled: /data/xraid0. Interestingly this is the right-hand bank of disks.

Data recorded as follows:

09:50:00 → 09:50:30 - duration was set to 30s, whoops! 09:58:00 → 10:27:12 Stopped to reconfigure caching settings on the Xraids 10:28:00 → end

Notes: 09:50:00 On point and recording 12:28:00 (approx time) IF2 unplugged briefly for a sanity check 12:37:00 Antenna off point for ~ 30s for another sanity check 12:42:00 After conversation with Adam, can see no problems with the

system so suspect lack of fringes to Tid is due to checking software not handling the mixture of bands and pols correctly. Have double checked frequency setup, antenna pointing, recorder clock etc and all looks correct.

Tidbinbilla Setup notes for V189a

Config notes

- Centre freqs = 1650, 1682 MHz MHz
- Polarisation = LCP
- 1st LO = 1380 MHz
- mix to 160 MHz into DAS
- so 2nd LO for USB mix
 - IFP1: $1650 - 1380 + 160 = 430$ MHz
 - IFP1: $1682 - 1380 + 160 = 462$ MHz
- DAS profile = vsop_f.pro

SOE

Before the track

- Block 0 rack config
 - Split L-band signal then amplify, attenuate, mix etc to IFP1, 2
 - 2nd LOs
 - 1: 430 MHz
 - 2: 462 MHz
- PCFS
 - sched files
 - fix timing

- add source commands
- modify PRC file
 - VFC patching
 - patch in L-band and set LOs to 286 MHz (1666 MHz Sky)
 - S2 config
- start DAS software
 - configuration vsop_f.pro
 - adjust attenuators
- tidvsi
 - 203.5.58.205 (admin LAN only, use jplvisitor account)
 - check time
 - use disko
 - vsib_record -m 3 -c xxxx -e /dev/vsib -t 32400s -o /blah/v189a-ti
 - configure and start
- xplot
 - on pcfs40: /usr2/st/vlbisrv/start_vlbisrv dflt
 - on eac40: /opt/rmc/bin/xplot -rh pcfs40
- start PCFS software
 - ssh ops@pcfs40
 - pcfsa-remote
 - S2, S-RCP, S-LCP, maintenance
 - start the schedule
 - configure VFCs with ifds and vclba

At start of track

- NMC
 - Link
 - Build link with antenna and receiver, spacecraft 50 (VLBI), pass 0, two receivers.
 - antenna startup
 - in NMC:CTRL Connection Control:
 - AP D TRK (to show the track display)
 - Check for:
 - * delut ~ +229 ms
 - * models for encoder and position should be 3SPIG.AC1 and 3SCIB.SEM respectively
 - ap band s
 - ap move r=240
 - ap semn 3spig.ac2
 - ap semn 3scib.sem
 - ap radec 9.63649 -24.94850 (j0038-24)
 - ap mode ac2
 - ap d sts (check all green. click on antenna to see brakes status)
 - ap trk (start the antenna)
 - (make safety page)
 - ap resm trk
 - start three connection blocks
 - connection blocks → NDcontrol (Note PID)
 - connection blocks → UWVcontrol (Note PID)
 - connection blocks → APCcontrol (Note PID)

- start the E-log TDN
 - TDNs → **log?**
 - move to 'logs' workspace
- receiver config
 - us d smap
 - us d xmap
 - (double-click on dichroic to move it IN)
 - (configure with double-clicks)
 - D1 D CNF 3
 - (select SC 99 and S band and [apply])
 - make carrier 2280 MHz
 - if fail to pick up correct LNA:
 - D1 set uwv reset
 - d1 set uwv srla2o2
 - D2 D CNF 4
 - (select SC 99 and S band and [apply])
 - make carrier 2280 MHz
 - if fail to pick up correct LNA:
 - select connection “none”
 - select connection DSS43SO2
 - if still failing
 - D1 set uwv reset
 - d1 set uwv srla2o2
 - configure noise diode
 - d1 d prf 3 and d2 d prf 4
 - click on REC button in CNF windows
 - select 12.5K and frequency = on, apply
 - then enable/disable, check in each IF
 - to modulate
 - * 0.25 K, 20 Hz, 5s, enable
 - repeat for D2
- boresight
 - manual offsets e.g:
 - ap po xel 0.1
- PCFS
 - check atten levels
- schedule file changes

remove all: st= et unlod setup0* ready tape

Add to prc file:

```
define ifds 06132201809x ifd=,,nor,nor lo=lo1,1380,usb,lcp,1.0,0
patch=lo1,1h,2h,3h,4h,5h,6h,7h,8h,9h,10h,11h,12h,13h,14h enddef define vclba 06132201825x
vc01=285.99,16.00,ul vc02=285.99,16.00,ul vc03=285.99,16.00,ul vc04=285.99,16.00,ul
vc05=285.99,16.00,ul vc06=285.99,16.00,ul vc07=285.99,16.00,ul vc08=285.99,16.00,ul
vc09=285.99,16.00,ul vc10=285.99,16.00,ul vc11=285.99,16.00,ul vc12=285.99,16.00,ul
vc13=285.99,16.00,ul vc14=285.99,16.00,ul !+1s valarm enddef define postob 00000000000x
enddef define sched_end 00000000000x sy=echo "QUIT" | netcat nmc-ws4 -q 2 6543 sy=echo "QUIT"
| netcat nmc-ws4 -q 2 6643 sy=echo "TERMINATE" | netcat nmc-ws4 -q 2 6743 enddef
```

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Last update: **2015/12/18 16:38**