

# Tidbinbilla schedule file preparation

## Obtaining Schedule Files

Download the .skd and .sum files for the experiment from the pub/people/vlbi directory of the FTP site <ftp.atnf.csiro.au> and put them in pcfs40:~/sched\_prep. The .skd file is processed to a SNAP and procedure file on pcfs40. These files are further processed on pcfs42 before being returned to pcfs40!

- scp the .skd file to pcfs40:~/sched\_prep
- on pcfs40 in the sched\_prep directory:
  - run drudg
    - At the prompt give the name of the .skd file
    - At the next prompt, give the name of the antenna (in this case "Ti")
    - select 3 for a SNAP file then 12 for a PRC file, then 0 to exit
  - transfer the resulting .prc and .snp files to pcfs42:~/vlbi\_scheds

Both the procedure and SNAP files need some modification. The procedure file needs some extra procedures to set up the PCFS patching and VFCs (this is just to keep them happy and doesn't impact on the data being recorded or the Tsys measurements). There's also a new command to define, called sched\_end, that forces the NMC script to exit nicely. The SNAP file needs quite a bit of modification. The first thing is to remove any S2 specific commands as the PCFS won't be controlling the S2. The next thing is to comment out some of the wait commands as some wait commands appear later in the file but have earlier times. For example:

```
!2007.080.09:18:00 data_valid=on tape midob !2007.080.09:21:00 data_valid=off tape postob
scan_name=No0004,v209a,180 source=1237-5046,123715.24,-504623.2,2000.0,neutral setup01=0
!2007.080.09:18:30 tape st=for,slp !2007.080.09:21:00 data_valid=on tape midob
```

Note the wait for 2007.080.09:18:30 occurs AFTER 2007.080.09:21:00. This causes confusion in the observations and can result in sources being missed. Lastly, the SNAP file should be modified to include source commands the NMC script understands.

## Procedure file modifications.

- Remove the setup01, unloader and loader definitions. These are all S2 specific and will cause problems if they're left in.
- Add the following definitions:

```
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 endif 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 endif define postob 00000000000x
endif define midob 00000000000x vread endif define sched_end 00000000000x sy=echo
"TERMINATE" | netcat nmc-ws4 -q 2 6743 endif
```

Note the above is for L-band. For other bands, adjust the LO frequency (to the first LO), change the patching to the low frequency filters if needed, and the VC frequencies to something in the band.

## SNAP file modifications

Run the script `remove_S2_from_SNAP.pl` to remove all S2 specific commands and CSIRO2DSN (twice) to remove the time wait problem. This can be done with a single command:

```
~/bin/remove_S2_from_SNAP.pl SNAP_FILE.snp | ~/bin/CSIRO2DSN |  
~/bin/CSIRO2DSN > temp.snp
```

Obviously replace `SNAP_FILE.snp` with the name of your SNAP file.

Lastly, modify the `temp.snp` to include the NMC commands with precessed source coordinates:

```
~/bin/snap2sidereal_apc.pl temp.snp 2007 80 > SNAP_FILE.snp
```

Note you need to provide the year and day number of the experiment. The output file should be the name of the original SNAP file.

## Transfer the modified SNAP and procedure files to pcfs40.

The `.snp` file goes in `/usr2/sched`, the `.prc` goes in `/usr2/proc`

From:  
<https://www.atnf.csiro.au/vlbi/dokuwiki/> - **ATNF VLBI Wiki**

Permanent link:  
<https://www.atnf.csiro.au/vlbi/dokuwiki/doku.php/lbaops/tidnotes/fileprep?rev=1312956546>

Last update: **2015/12/18 16:39**

