

# Observatory Setup

At each observatory you need to run the `obs.pl` program. This connects to the correlator processors at Parkes and copies the requested data down the network. `obs.pl` should be run remotely by whoever is running the fringe test, as they sometimes hang and have to be restarted. This should be run after the correlator processes are started. Once you have logged onto the recorder PCs, you need to `cd` to the directory where the data is being recorded then run `obs.pl`. If the recorder is currently been run via `cdisko` or other programs which use “`recorder_server`”, then an alias “`rekdir`” is setup which will automatically change to the correct directory. Usage will normally be something like:

```
rekdir
obs.pl
```

On Mark5 systems you will have to “`cd`” to whatever directory the Mark5 is dumping the data.

If disk recording is moved to a different directory, `obs.pl` will have to be stopped and restarted in this new directory.

## Logging Onto Observatories

The recorders are running on the following machines and usernames. Note if remote recording is being run, you need to log onto the machine where the data is being written to disk **NOT** the machine where the data is received from the telescope. You can only connect via ssh.

Observatory	Host	Username
Parkes	pkvsi1-ext.atnf.csiro.au	vlbi
Parkes	pam-store.atnf.csiro.au	vlbi
ATCA	cavsi1-ext.atnf.csiro.au	vlbi
ATCA/Mopra	cave-store-ext.atnf.csiro.au	vlbi
Mopra	mpvsi1-ext.atnf.csiro.au	vlbi
Hobart	hovsi.phys.utas.edu.au	vlbi
Ceduna	cdvsi.phys.utas.edu.au	vlbi
Tid	203.5.58.205	vlbi
ASKAP	cira10.atnf.csiro.au	vlbiobs

Note that at the ATNF observatories we also record data onto `cave-store-ext` and `pam-store-ext`. In such cases you need to run `obs.pl` on the machine where the data is being recorded - see the note below.

## Easy startup

The script `rtfc_obswin.csh` will start up 6 xterms and log into the recorder PCs. If you have ssh passphrases setup, you will not need passwords.

## Environment settings

The following environment variables need to be set (or added to existing paths)

	Example
PERL5LIB	/home/vlbi/evlbi/RtFC
PATH	/home/vlbi/evlbi/RtFC
RTFC_CONTROL	Optional, defaults to localhost
RTFC_CORRELATOR	Optional, defaults to localhost
RTFC_ANTID	E.g. 'At', defaults to 'Tt'
RTFC_ANTNAME	'ATCA Phased array', defaults to 'Test Antenna'

## Remote recording

If you are recording to a remote recorder you need to ensure RTFC\_ANTID (and RTFC\_ANTNAME) are set. For remote recorders which generally only record data from a single telecope this will normally be setup in the login scripts. cave-store can record data from Mopra and ATCA. Aliases have been setup "mopra" and "atca" to setup the environment. E.g.: `→ > atca → > obs.pl`

## Inverted Spectrum

Normally if the telescope IF spectrum is inverted, a flipped DAS profile should be used. However for 64 MHz recording the spectrum cannot be "flipped". If you know or suspect the band is inverted you can run obs.pl with the "-invert" option and it will flip the data for you.

```
→ > obs.pl -invert
```

## Mark5b

obs.pl supports Mark5B recording, as long as the "mark5access library and utilities are installed and accessible. Note this depends on the VLBI schedule having had explicit fringe test times added. Transfer times from Hartebeesthoek are terrible slow - usually it is faster to transfer the file by some other means then run obs.pl on a local machine.

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

