

# Introduction\\

If DCCs have been used to log Tsys, the logs need converting from binary to ascii format and then transferred to pcfs42 for final processing. If xplot has been used, the log is in ascii format but needs a small amount of editing before sending off. Below are instructions on retrieving and processing both formats. In either case, the desired final format is that required by the ANTAB task in the VLBI processing package [AIPS](#). Here is a [detailed description](#) of the format. It should look like this:

```
TSYS TID FT=1.0 TIMEOFF=0 INDEX='L1|L2' /
!xplot Log: IF1, Wed Nov 15 12:40:08 2006 (UTC)
!DOY UTC Sys_Temp (K) Gain (K/uW) Load_Temp (K) Linearity
322 09:20:00 20.1636
322 09:20:01 20.1706
322 09:20:02 20.1775
322 09:20:03 20.1775
322 09:20:04 20.1775
.
.
.
322 18:26:07 19.3913
322 18:26:08 19.3217
322 18:26:09 19.3217
/
```

The first line says it's a Tsys log, the antenna is Tid, the Tsys values should be scaled by 1.0 (in some cases a scale factor other than 1 might be needed if the Tsys values need scaling), that the time tags are to be offset by 0 sec (if the EAC had a clock offset, this might need to be non-zero), and that the Tsys data apply to both LCP channels. Lines beginning with a "!" are comments. The data columns are day number, time (in UT) and Tsys (in K). The last line should be a slash.

The name of the final file should be <experiment\_name>ti.antab, e.g v209ati.antab.

## Tsys logs written by xplot\\

Xplot logs are written to eac40 in the ~/logs directory. The format is already in ANTAB format, but the header and trailing slash should be added. If the log has a time offset include it in the TIMEOFF parameter (see the [Before the Track](#) section. If the Tsys needs scaling then the FT value should be changed.

## Retrieving a SNT Log from a DCC\\

(these notes provided by Leigh Cameron)

## On `DMT1:\`

(or via ssh to a dcc then to dmt1)

1. Open an X terminal.
2. Change to the /home/ops/ra directory: `cd ra`
3. Copy the raw receiver log/s from the relevant dcc. `\``

```
scp dccx-r:/home/ops/logs/dcc/dccx_rrplog.nnn . \`
```

There will be one of these log files for each dcc used (x) and for each part of a day the pass spanned (nnn). All logs except the current one will have been gzip'ed, i.e. have a `.gz` extension `\`` to unzip them, do `\``

```
gunzip dccx_rrplog.nnn.gz
```

1. Convert each raw log to text and extract just the SNT values: `\``

```
./`LogUtilRcvCvtPerf -t aaaaaa -c bbbbbb -i dccx_rrplog.nnn -car |  
./Extract_SNTs » experimentname.dccx.snt.log \`
```

aaaaaa is the start time in UT as six digits, bbbbbb is the duration in seconds. Make sure to do the lowest nnn files first, so that the results are concatenated in order.

1. Check the file produced: `\``

```
more experimentname.dccx.snt.log
```

1. The results can now be transferred to the EAC. `\``

```
ssh dccx \`  
cd /tmp \`  
scp dmt1:ra/experimentname.dccx.snt.log . \`  
exit \`  
scp dcc1:/tmp/experimentname.dccx.snt.log <destination>
```

## Notes:\`

- The steps involving an 'scp' command cause the systems involved to hit 100% CPU load momentarily. This should not cause any problems, but may cause warnings to be displayed. Ideally this should only be done when the dcc is idle.
- If the EAC cannot talk to a dcc it may be connected to the test LAN

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