

AG501

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on: February 21 <sup>st</sup> , 2014	on:
by: Ulrich Szagun	by:

## II. Command lines for data processing

### A. Head correction

npinit is a script to perform head correction. Put the following code into the terminal:

```
cd /data/recorder/current/
npinit rawpos/0011.pos 3003
```

Write at the terminal :

```
cd /data/recorder/current/
```

```
npinit rawpos/0011.pos 3003
```

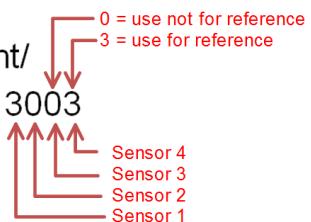


Figure 1: scheme to select the reference sensors

This is an example of how to set sensors 1 and 4 from sweep 11 as reference sensors for the head correction.

```
npinit rawpos/0001.pos 33
```

This is an example of how to set sensors 1 and 2 from sweep 1 as reference sensors for the head correction.

All sweeps within the rawpos folder will be corrected and stored in the pos folder now.

"3" defines the type of head correction.

```
csop@cs61:~]$ cd /data/recorder/current/
[csop@cs61 current]$ npinit rawpos/0001.pos 3300
doing

[ENTERING MODUS REFGEN] Reference object creation
[OK] Default sample selection using samples 1218 to 1317
[SUCCESS]
[Good Bye.]

lgfilename: pos/rigidbodyana.log
[MODUS:] Rigid Body Analysis, this might take a while ..

[Good Bye.]
[csop@cs61 current]$
```

Figure 2: screen output during head correction

Filtering is ON by default. The filter files can be found in "/opt/age/bin/filter/".

Extensive options for creating a reference object and performing head correction provides the program `normposcmd`. Run `normposcmd -h` for a detailed description of usage and options.

## B. Converting the results to ASCII format

The program bin2asciicmd provides several options to convert pos- and amp-files non-destructive to ASCII-format. Run `bin2asciicmd -h` for a detailed description of usage and options.

### 1. Amplitudes

```
cd /data/recorder/current/
bin2asciicmd -i amps
```

### 2. Calculated position and orientation

```
cd /data/recorder/current/
bin2asciicmd -i rawpos
```

### 3. Head corrected data

```
cd /data/recorder/current/
bin2asciicmd -i pos
```

## III. Command lines for circal control

The commands `move`, `waitforcircaldone` and `circalstat` provide direct access to circal functions.

`move {steps}` - moves the circal by the number of specified steps.

A complete circle contains 8000 steps.

`move 1000` - moves the circal 1000 steps (45°) counterclockwise (viewed from top).

`move -1000` - moves the circal 1000 steps (45°) clockwise (viewed from top).

`move 0` - stops the circal

`waitforcircaldone` – the command waits for the circal to complete movement

`circalstat` – fetches the actual circal status (position, moving or idle)

## IV. Adjusting AG501 parameters

```
setag500param
```

```
csop@cs94 ~]$ setag500param
Set parameters for AG500 system
Circal Logic Zero [7975]:
Circal Z Base [40.5]:
Circal Sensors per magazine [4]:
Circal Radius [80]:
Active Channels [16]:
```

## V. Set fixed length for sweeps

```
setsweeplen 5
```

To use fixed length, use the command line `setsweeplen 10`. When this command is used, each sweep recording will stop after 10 seconds. It is still possible to stop the sweep earlier.

To enable the maximum sweep length, use the command `setsweeplen 0`

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## VI. Revision history - Command lines for advanced users

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Date	Revision	Annotation
February 21 <sup>st</sup> , 2014	1	Ulrich Szagun
January 28, 2016	2	Brigitta Carstens