

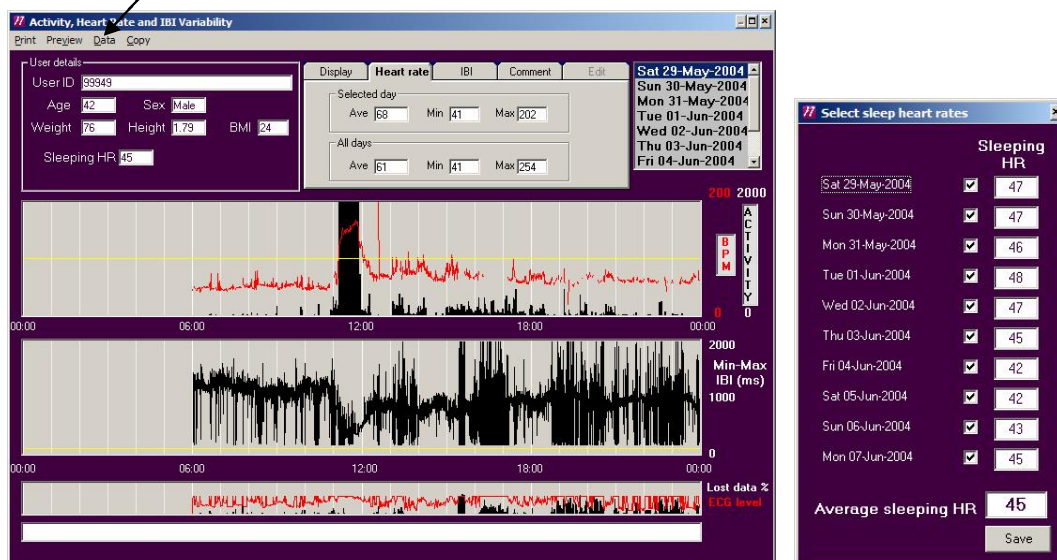
6.1.2 Setting Sleeping Heart Rate

It is essential that sleeping heart rate (SHR) is accurately set for each participant as it is used in explaining the individual's relationship between physical activity intensity and HR. An alteration in sleep heart rate has a significant effect on the results of the processing, therefore, this needs to be set correctly before loading.

The process of setting sleeping heart rate may have been completed upon file download (e.g., when Trimming long term file), in which case, at this stage it is advisable to double check that this has been carried out on all relevant files by following the instructions below.

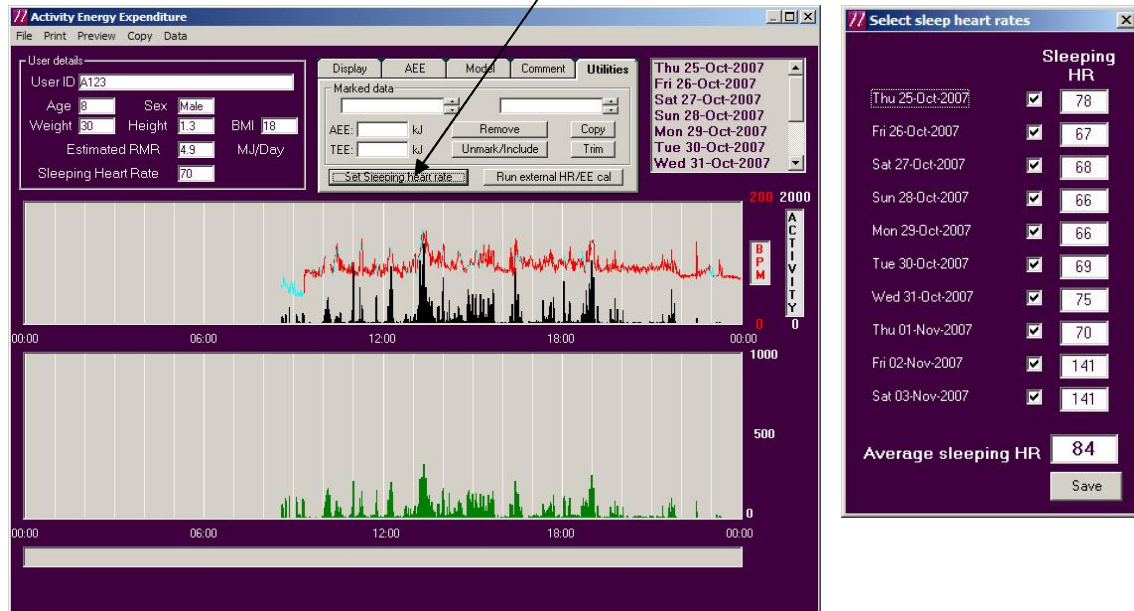
- Click on "Long Term" on the Activity & Heart Rate tab.
- Double click on the file of interest and the trace will appear.
- Click on Estimate Sleeping Heart Rate, under Data menu.
- Software will automatically select the highest of the thirty lowest minute-by-minute HR readings during a 24 hour day and display the value on the screen.

Click "Estimate sleeping HR" from Data menu



Note: It is recommended to set SHR when looking at the raw data through the "Long Term Recording" menu but it can also be done in "Advanced Energy Expenditure". Click on the button "Set Sleeping Heart Rate".

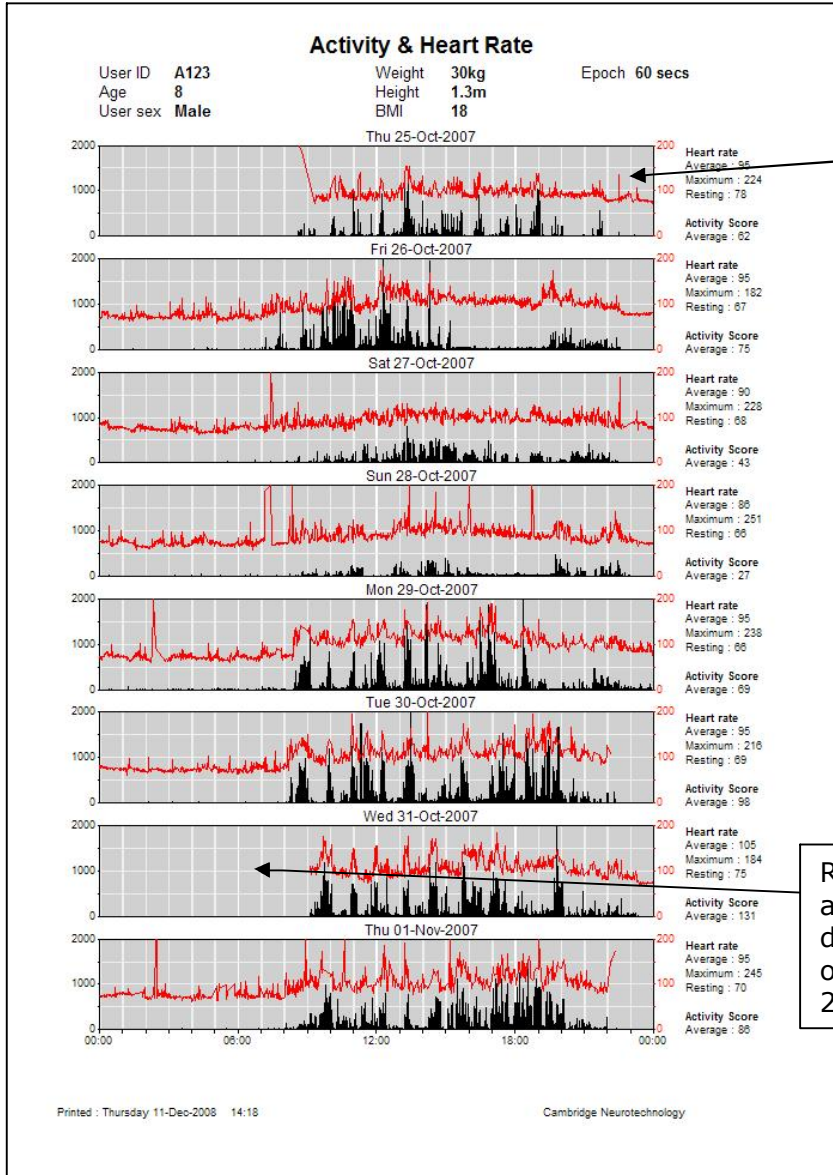
Click on Set Sleeping Heart Rate.



- Uncheck boxes which should not be included in Average SHR calculation (refer to the raw preview of data):
 - a. Remove the first reading which is usually the highest (usually if there is not a long period of sleep or the volunteer started wearing halfway through the day, therefore the value may not actually reflect sleep, especially if the volunteer did not go to bed before midnight).
 - b. Uncheck any non-realistic HR values when the volunteer was not wearing the monitor (i.e. 141 appears if the data has not been trimmed). Note: If this is present, trim the data first.
 - c. Uncheck readings where the volunteer was not wearing the monitor during a period of sleep in that 24 hour period.
 - d. You may wish to have an additional rule after these exclusions, i.e. remove all values 5bpm away from the average reading.

Whatever the rule decided upon, log this for future reference & be consistent when setting SHR throughout a particular study.

This is an example of values which would be removed from the calculation using the rules above:



Remove Thursday as not worn for reasonable period of sleep

Date	Selected	Sleeping HR
Thu 25-Oct-2007	<input type="checkbox"/>	78
Fri 26-Oct-2007	<input checked="" type="checkbox"/>	67
Sat 27-Oct-2007	<input checked="" type="checkbox"/>	68
Sun 28-Oct-2007	<input checked="" type="checkbox"/>	66
Mon 29-Oct-2007	<input checked="" type="checkbox"/>	66
Tue 30-Oct-2007	<input checked="" type="checkbox"/>	69
Wed 31-Oct-2007	<input type="checkbox"/>	75
Thu 01-Nov-2007	<input checked="" type="checkbox"/>	70
Fri 02-Nov-2007	<input type="checkbox"/>	141
Sat 03-Nov-2007	<input type="checkbox"/>	141

Average sleeping HR: 68

Remove wed as not worn during period of sleep in this 24hr period

Remove 141 values on Friday and Saturday as after vol finished wearing