



SleepyHead

Sleep tracking software for CPAP treatment

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Sleep Apnea

- Central Sleep Apnea
 - Central nervous system
- Obstructive Sleep Apnea
 - Physical issue
- Waking up tired everyday? Take the test.
- Can be harmful
 - Increased blood pressure...



Possible Treatments

- CPAP
- Mandibular advancement splint
- Tennis balls or other stuff to avoid sleeping on the back
- Other less tested things
- Medical tape (WorksForMe™)



CPAP: Continuous Positive Airway Pressure

- Controlled air pump and optional humidifier
- Expensive (often rented)
- Custom firmware
 - Stores pressure value, detected apneas...
- Custom monitoring software
 - SD card data format rarely open



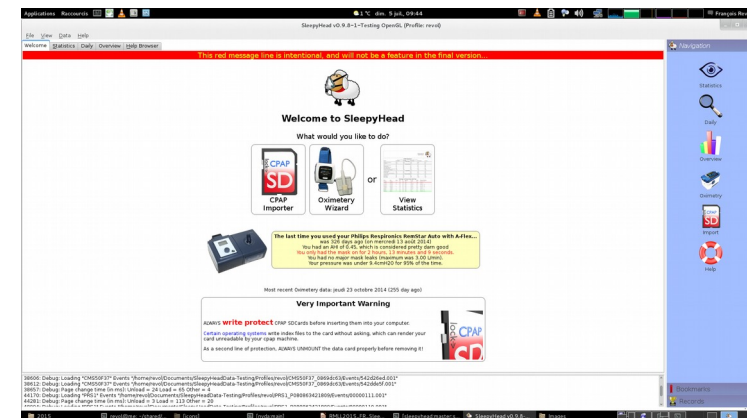
Pulse Oxymeter

- Measures heart rate and oxygen saturation
- Each use an obscure custom protocol
 - Usually over RS232 over USB
- Provides complementary data

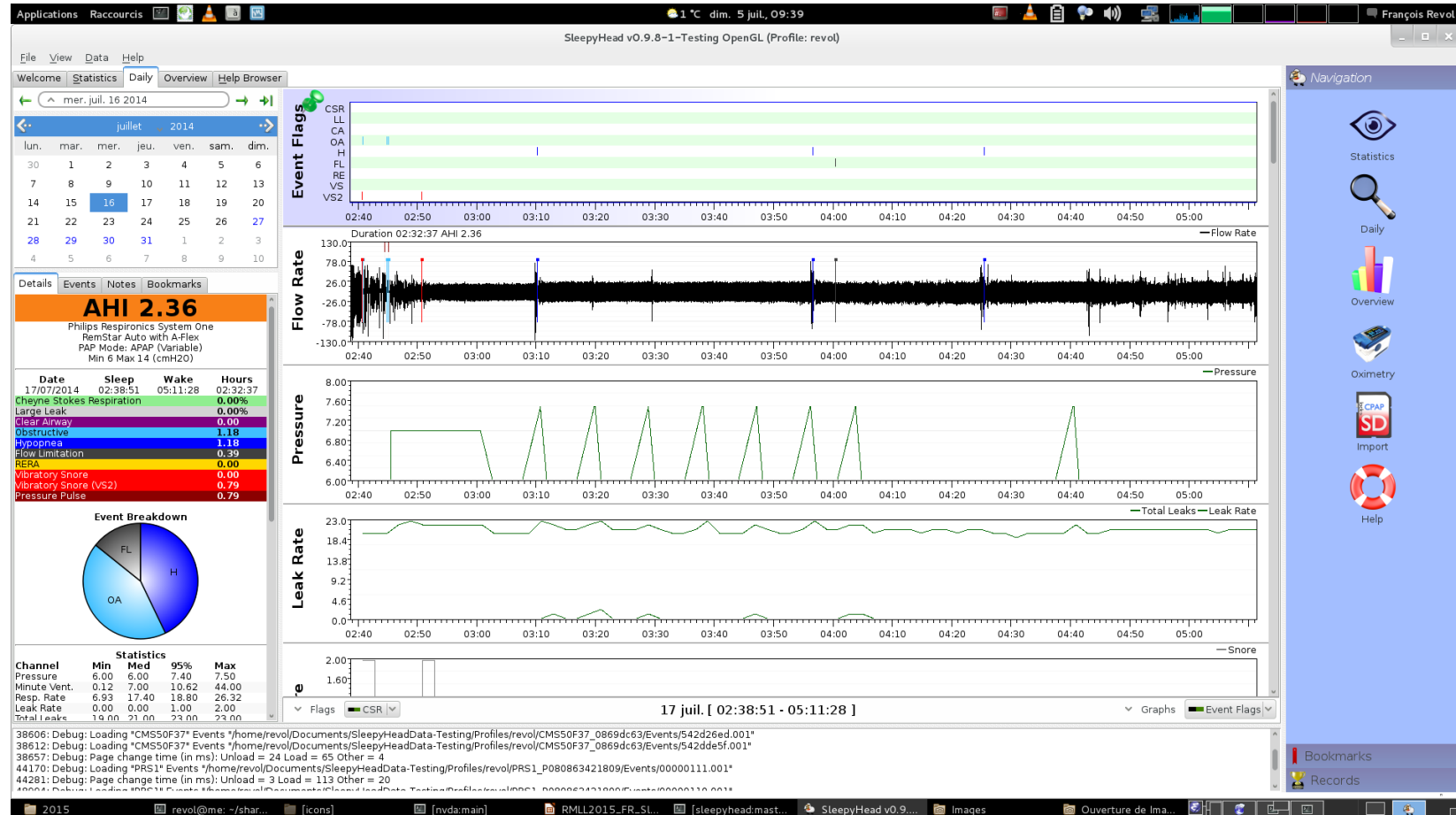


SleepyHead

- Offline CPAP data display and analysis (SD)
 - Philips Respironics S1, ResMed S9, DeVilbiss Intellipap, Fisher & Paykel ICON
- Oxymeter data import (USB serial)
 - Contec CMS50D+, CMS50E and CMS50F (not W)
 - ResMed S9 Oxymeter
- Qt5 (GNU/Linux, Windows, OSX, soon Haiku?)



Graphs



Stats

Applications Raccourcis 1 °C dim. 5 juil., 09:44 François Revol


SleepyHead v0.9.8-1-Testing OpenGL (Profile: revol)

File View Data Help

Welcome Statistics Daily Overview Help Browser

Navigation

Statistics
Daily
Overview
Oximetry
Import
Help

SleepyHead Usage Statistics 

CPAP Statistics

31 days of CPAP Data, between mar. mai 27 2014 and mer. août 13 2014

Details	Most Recent	Last Week	Last 30 Days	Last 6 Months	Last Year
CPAP Usage					
Average Hours per Night	02:13	05:01	04:42	03:16	03:16
Compliance	0%	86%	68%	42%	42%
Therapy Efficiency					
AHI	0.45	0.57	0.69	1.08	1.08
Obstructive Index	0.00	0.06	0.11	0.24	0.24
Hypopnea Index	0.45	0.51	0.55	0.76	0.76
Clear Airway Index	0.00	0.00	0.03	0.09	0.09
Flow Limitation Index	0.00	0.28	0.26	0.27	0.27
RERA Index	0.45	0.34	0.35	0.59	0.59
% of time in Cheyne Stokes Respiration	0.00%	0.00%	0.02%	0.02%	0.02%
Leak Statistics					
Average Leak Rate	0.32	0.31	0.32	0.30	0.30
90% Leak Rate	0.00	0.00	0.00	0.00	0.00
% of time above Leak Rate threshold	0.00%	0.00%	0.00%	0.00%	0.00%
Pressure Statistics					
Average Pressure	8.08	6.50	6.29	6.39	6.39
Min Pressure	8.00	6.00	6.00	4.00	4.00
Max Pressure	9.50	9.50	9.50	11.40	11.40
90% Pressure	0.00	0.00	0.00	0.00	0.00

Oximeter Statistics

9 days of Oximetry Data, between dim. mars 23 2014 and jeu. oct. 23 2014

Details	Most Recent	Last Week	Last 30 Days	Last 6 Months	Last Year
Blood Oxygen Saturation					
Average SpO2 %	96.63	96.63	95.22	93.07	91.14
Min SpO2 %	8.00	6.00	93.00	0.00	0.00
SpO2 Drop Index	0.00	0.00	7.98	30.31	29.69
% of time in SpO2 Drop	0.00%	0.00%	4.10%	61.61%	60.33%
Pulse Rate					
Average Pulse Rate	115.74	115.74	121.50	77.38	75.78
Min Pulse Rate	110.00	110.00	77.00	0.00	0.00

Report Mode Standard Monthly

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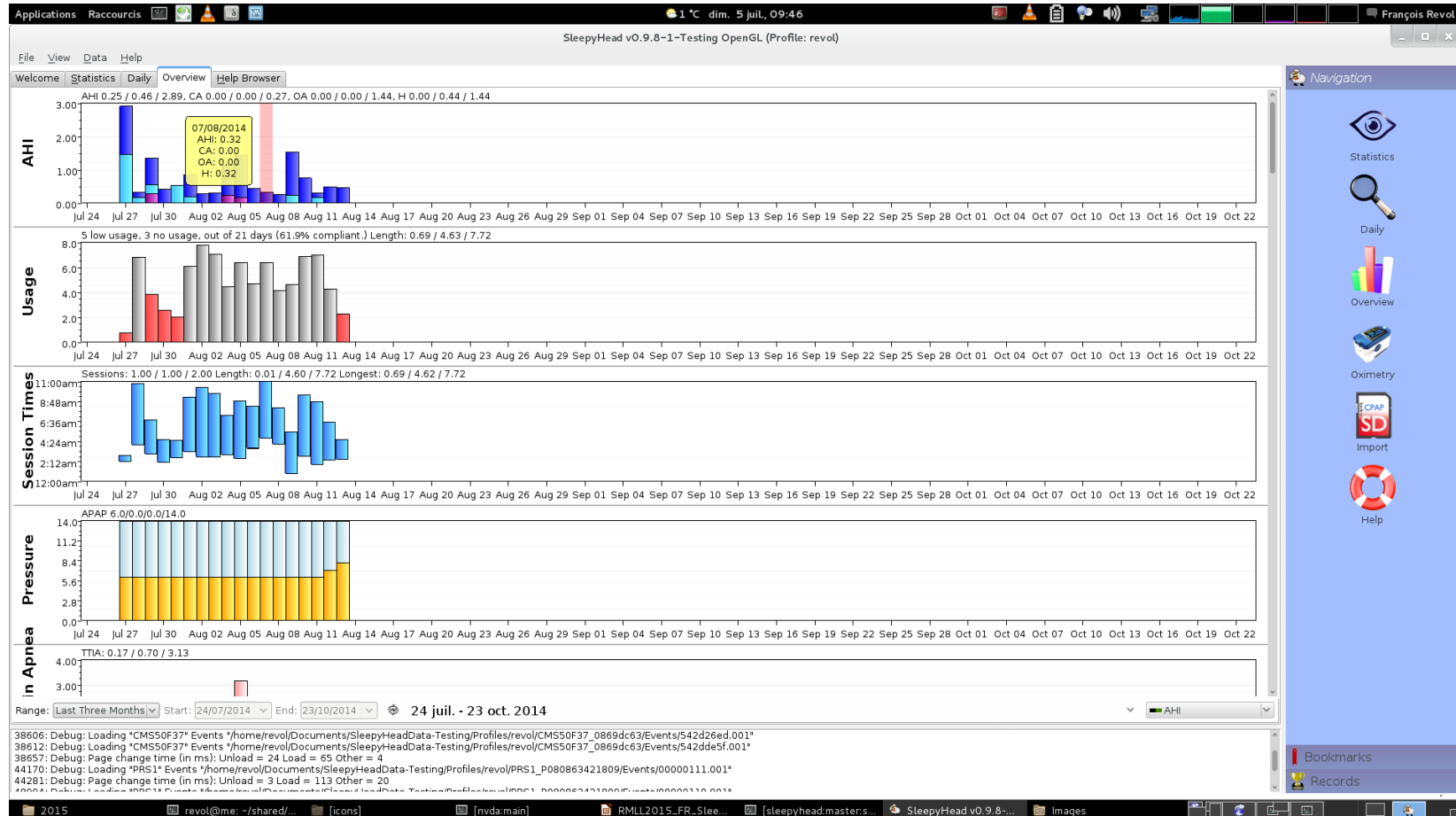
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38612: Debug: Loading "CMS50F37" Events "/home/revol/Documents/SleepyHeadData-Testing/Profiles/revol/CMS50F37_0869dc63/Events/542dde5f.001"
38657: Debug: Page change time (in ms): Unload = 24 Load = 65 Other = 4
44170: Debug: Loading "PRS1" Events "/home/revol/Documents/SleepyHeadData-Testing/Profiles/revol/PRS1_P080863421809/Events/00000111.001"
44281: Debug: Page change time (in ms): Unload = 3 Load = 113 Other = 20
44004: Debug: Loading "PRS1" Events "/home/revol/Documents/SleepyHeadData-Testing/Profiles/revol/PRS1_P080863421809/Events/00000112.001"
  
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2015 | revol@me: ~/shared/... | [icons] | [nvda:main] | RMLL2015_FR_Slee... | [sleepyhead:master:s... | SleepyHead v0.9.8-... | Images

Bookmarks
Records



Overview



Conclusion

- SleepyHead doesn't replace the doctor, but allows OSA patients to take back control of their treatment, instead of just depending on a machine they don't control.
- Questions?

