

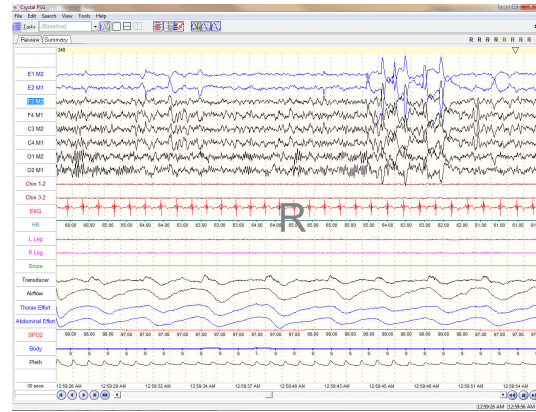
## Crystal PSG™ Software

The Crystal PSG software offers a complete and user-intuitive software package for managing patient sleep data with data acquisition, scoring, and reporting. It offers quick and easy system setup as well as convenient patient and study management. Crystal PSG can be used with any of CleveMed's PSG systems (**Sapphire PSG & Crystal Monitor**) or portable sleep monitors (**SleepScout & SleepView**).

### Recording Sleep Data

Crystal PSG software records conventional physiological signals while the patient sleeps.

- Patient's physiological signals can be viewed throughout the acquisition of sleep data, including SpO2, heart rate, body position, and CPAP level.
- Sapphire PSG impedance check allows for easy confirmation of electrode placements during sleep recording set up.
- Sleep techs can store bio-calibrations and frequently used comments to be quickly accessed when needed.
- Pause the acquisition screen for review while live data continues to be recorded behind the scenes.
- Raw sleep data may be exported to EDF format for review in other software packages.

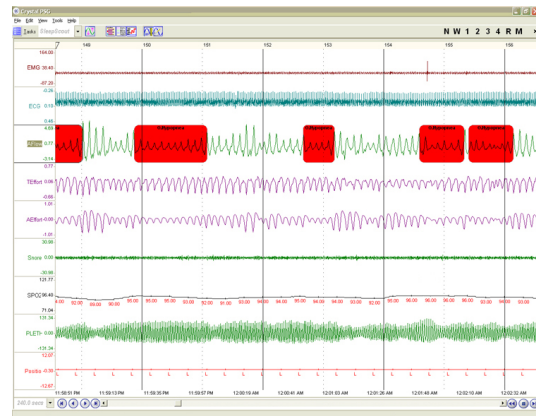


Crystal PSG records conventional sleep lab quality physiological signals while the patient sleeps.

### Scoring Sleep Data

Crystal PSG software makes manual scoring simple. Events such as desaturations can be quickly brought to attention with the aid of the autoscoring function.

- Ample keyboard shortcuts are available for human scoring of sleep and its associated events, making manual scoring quick and easy.
- Hypnogram and events list are available to give an overview of the study and to jump to points of interest within the raw data.
- Quickly access AHI during any study or portion of a study, including split night studies
- Manual scoring is completed quickly by assigning default events for each channel with the montage editor.
- EKG Removal Tool cleans up excessive EKG artifact.



Sleep Technicians can score sleep test data with user-intuitive Crystal PSG software

### Generating Sleep Test Reports

Crystal PSG generates easy-to-read sleep reports in Microsoft® Word® that can be easily customized to suit your facility's needs.

- Reports are seamlessly integrated with the entire patient and study database.
- A variety of report templates are available for each user's specific needs, including PSG, titration and MSLT. Custom reports can also be created for your lab's specific needs.
- Additional notes or test results can be added as needed after report generation.

The archive tool packages a copy of the database and patient data for back-up.

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**Portable Monitor Report**

Patient Name: Doe, John      Height: 72.00 inches      DOB: 12/18/1959  
 Recording Date: 12/22/2009      Weight: 300.00 Lbs      Gender: M  
 Physician: Dr. Brown      BMI: 40.68      Technician: RPSGT  
 Neck Size: 19CM

**RECORDING SUMMARY:**  
 Acquisition Start: 11:46:13 PM      Acquisition End: 06:51:41 AM  
 Total Acquisition Time: 305.5 min

**RESPIRATORY SUMMARY**

O. Apnea Events: 73	O. Apnea Index: 8.99
Total Number of Apnea Events: 85	Total Apnea Index: 10.5
C. Apnea Events: 12	C. Apnea Index: 1.48
Total Number of Hypopnea Events: 33	Total Hypopnea Index: 4.1
<b>TOTAL NUMBER OF EVENTS: 118</b>	<b>TOTAL APNEA/HYPOPNIA INDEX: 14.5</b>
Longest O Apnea Duration: 72.31 sec	Longest Hypopnea Duration: 84.62 sec
Mean O Apnea Duration: 33.09 sec	Mean Hypopnea Duration: 29.82 sec

**SLEEP APNEA SEVERITY SCALE**

Normal	Mild	Moderate	Severe
AHI < 5	AHI 5-14	AHI 15-29	AHI 30 or >

**APNEA / HYPOPNIA EVENTS BY BODY POSITION:**

Position:	SUPINE	PRONE	LEFT	RIGHT	UNKNOWN
Number:	1	2	5	0	0
Index:	15.79	0.0	3.60	1.22	N/A

**DESATURATION SUMMARY TABLE**

SpO2	95-99	90-99	75-99	60-99	50
Min:	302.75	0.00	0.0	0.0	0.0
%Time:	99.10	0.32	0.0	0.0	0.0

**PULSE RATE SUMMARY**

Mean Heart Rate (bpm): 73  
 Minimum Heart Rate (bpm): 34  
 Maximum Heart Rate (bpm): 106