



 **profusionSLEEP**
version 5

World Class Sleep Diagnostic Software

AASM V2 Compliant - Profusion Sleep meets the latest AASM scoring rules.

Allows expanded reporting for hypopneas including:

- REM without atonia (RWA)
- Hypopneas meeting the traditional Medicare rule of a 4% desaturation as well as that of a 3% desaturation with or without associated arousal
- Hypopneas meeting your traditional lab rule
- New report codes also allow reporting of AASM, Medicare (USA), and/or traditional hypopneas for numeric or chronological bi-level pressure treatment.

Features -

Totally Modern User Interface

Profusion Sleep software suite has been updated with a modern and visually appealing user interface. All applications within the suite have a consistent look and feel, making them easier to recognise, learn and operate.

My Workspaces

Each individual can customize up to four workspaces, which allow the user to maximize the screen layout for optimum viewing of essential data. Easily accessible waveform data, trends, hypnogram, digital video, and other data windows.

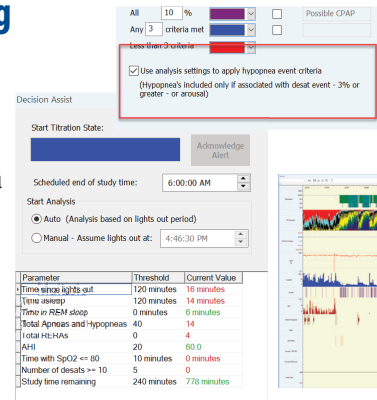
Drag-and-Drop Traces

Drag traces off screen to delete, drag in from a list to select. Move a trace by dragging and dropping in a new position.

Tools for Recording

Decision Assist

Aids deciding when to start CPAP titration in a split night study. Set your criteria for sleep and REM time, respiratory disturbances and oxygen saturation levels based on AASM Hypopnea scoring rules.



Visual and/or Audio Notifications on Calibrated Channels

Helps ensure critical events are not missed.

On-Line Trend View

Provides extensive information including any scored events, particularly useful during CPAP or Bi-level treatment.

Fully Synchronized High-Definition Digital Video/Audio Recording

With support for two High-Definition Video Cameras
Helpful when studying patients with parasomnias and seizure disorders. Features digital pan, tilt and zoom to record patient activity throughout the night.

Enhanced Pageback during recording

Integrated Pageback

Full automatic and manual on-line scoring or editing capabilities.

Video Review of previously recorded DV

Don't miss what the patient was doing while you attend to another.

ECG free trace transformation

Score during acquisition and frustrated with ECG artifact? **ECGfree** is now available during Pageback.



Charting Tool

A handy reminder to chart observations. User defined forms that pop-up at pre-defined intervals.

Online Respiratory Rate

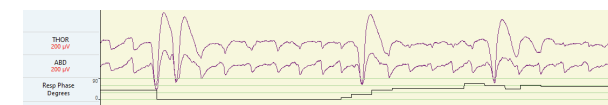
Quick Rate on-screen calculation. Provides additional information, especially for pediatric patients.

User Defined Manual Inputs

Create inputs to manually track important information such as body position and snoring level.

Respiratory SUM channel is also available in Pageback view.

The Respiratory Sum channel aids in the identification and classification of respiratory events, making it easier to score during acquisition.



Respiratory Band Phase Analysis

A new respiratory band phase analysis has been added to both PSG Online and Profusion PSG software to provide a new respiratory phase angle channel. Provides additional information, especially for pediatric patients.

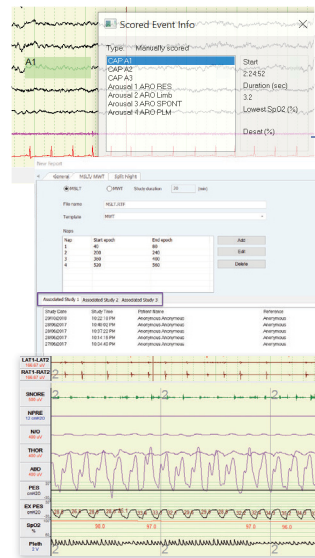
Tools for Scoring

“As Recorded” Review

Anyone viewing the file can see it just as the recording technician did. Change any settings or open with your own personal preferences.

Selectable Timebase

Easily review all data at the most appropriate rate. Display raw data or data trends in multiple panes with different timebases if desired.



View Data in Context

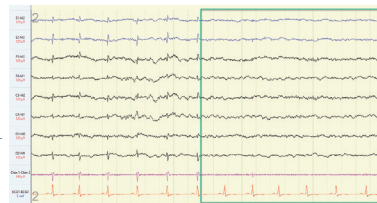
On-screen trend data and details of the current epoch allow simple relation to the entire study.

Cyclic Alternating Pattern (CAP) scoring and reporting

MSLT nap times are user configurable

Added ability to define MSLT nap periods for ease of reporting. No need to set lights on/off. Added ability to associate up to three studies during reporting.

Added analysis and reporting support for Esophageal Pressure Monitoring (Pes)



ECG free trace transformation - score or review, even during acquisition

Frustrated with ECG artifact? **ECGfree** is now available anytime you score or review.

Staging and Event Scoring Comparison

Correlate different staff member results, including epoch-by-epoch review.

Summary Statistics

See the results as you score. Dynamic on-screen display including sleep architecture, respiratory events, arousals and limb movements.

Staging Summary			
Total Recording Time (min)	5749	Time Available for Sleep (min)	5745
Start of Lights out	20:50:07	End of Lights out	6:09:36
Number of Awakenings	19	Total Sleep Time	720:00
Wake Time After Sleep Onset (min)	24.0	Sleep Efficiency (%)	76.6
Sleep Onset Latency (min)	110.5	Stage REM Latency (min)	70.5
Sleep onset time	22:25:37		
Respiratory Events Summary			
Apneas	0	REM	0
Hypopneas	5	NREM	9
Apneas + Hypopneas	5	Sleep	9
REDA	0		0
Duration in Apnea (min)	0		0
Duration in Hypopnea (min)	1		3
Duration in Apnea + Hypopnea (min)	1		3
AHI	2.9		0.7
RDI	2.9		0.7
Longest Apnea			
Longest Hypopnea			57
Largest SpO2 desaturation			7

Tools for Interpretation and Final Reports

Reporting Features Include:

- Generic scored event count graph
- RDI (Sleep time in Supine body position), RDI (REM Sleep in Supine body position), RDI (NREM Sleep in Supine body position)
- Expanded reporting for Hypopneas. Report both AASM and CMS defined hypopneas in any report
- Report expanded parameters for ASV
- Added analysis and reporting support for Esophageal Pressure Monitoring (Pes)
- Cyclic Alternating Pattern (CAP) scoring and reporting
- Split-night reports
- New Active text facility
- Report Options for Hypoxic Burden

Polysomnography Report		C COMPUMEDICS	
Study Information			
Female Patient	Study Type: Trial PSG		
Sex: Female	Study Date: 8/20/2013		
DOB: 1/1/1980	Revised M: 7/24/2013		
Height: 5'7"	Refer: Paul Peters, M.D.		
Weight: 175	Sleep Study: James Wilson, MD		
B.M.I.: 28.2	Recording Tech: D. Jones		
	Scoring Tech: M. Cummings		
Methodology: The patient underwent a digital polysomnography study using the PSG system with Fusion scoring software. Electroencephalogram, electrocardiogram, electromyogram, electrodermogram, respiratory effort, nasal and oral airflow, nasal pressure, leg movement, body position, pulse oximetry, sound and video were simultaneously recorded. The data was adequate for interpretation and the raw data was available for review. Scoring was based on the Recommended Standards and Specifications as outlined in the AASM Manual for the Scoring of Sleep and Associated Events, Version 2.0.			
Staging Summary Information			
Lights Out Time: 21:27:17		Lights On Time: 05:12:46	
Total Recording Time (min): 397.0 min		Total Sleep Time: 352.0 min	
Wake Time After Sleep Onset: 81.15 min		Stage REM Latency: 72.0 min	
Sleep Onset Latency: 90.0 min			
Staging Table			
Stage	Duration (min)	% Sleep Time	
Wake during sleep period	38.0		
Stage N1 Sleep	28.5	8.9	
Stage N2 Sleep	264.5	63.5	
Stage N3 Sleep	36.0	11.2	
Stage REM	38.0	10.5	

Respiratory Events Summary						
Parameter	Obstructive	Mixed	Central	Hypopneas AASM*	Hypopneas CMS†	REBA
Number in Sleep	13	5	38	56	27	0
Index (per hour)	2.4	0.9	7.1	10.4	0.5	0.0
Avg. Desat (%)	16	19	16	21.0	19.9	0
Number in NREM	10	5	27	44	29	0
Number in REM	3	0	1	12	7	0

Respiratory Events - REMNREM			
Parameter	NREM	REM	Sleep
Apneas	4	52	56
Hypopneas AASM*	12	44	56
Hypopneas CMS†	7	20	27
Apneas + Hypopneas AASM*	16	96	112
Apneas + Hypopneas CMS†	11	72	83
REBA's	0	0	0
AHI-AASM (hr)	18.1	21.4	20.9
AHI-CMS (hr)	12.5	16.1	16.8
RDI (hr) (includes all apneas, hypopneas and REBA's)	23.8	26.6	27.8

Respiratory Events Index (hr) by Position (sleep time)						
	Obstructive	Mixed	Central	Hypopnea AASM	Hypopnea CMS	REBA
Index Supine	2.2	2.7	20.9	20.5	9.2	0.0
Index Non-Supine	0.0	0.0	0.3	5.1	2.8	0.0

* Includes hypopneas with ≥ 4% desaturation or an arousal.
† Includes apneas plus hypopneas with ≥ 4% desaturation or an arousal.
‡ Includes apneas plus hypopneas with 2+ desaturation.

*Hypopneas with ≥ 3% desaturation or an arousal.
 *Hypopneas with ≥ 4% desaturation.
 *Includes apneas plus hypopneas with ≥ 3% desaturation or an arousal.
 *Includes apneas plus hypopneas with ≥ 4% desaturation.

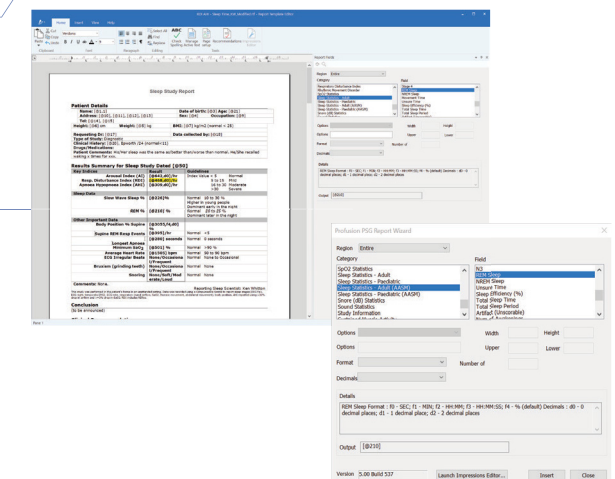
Treatment Statistics																			
CPAP	BPAP	BPAP	BPAP	BPAP	Pres	Other	Total	Total	Total	REM	REM	REM	#HYP	#CA	#OA	#MA	AHI	#REDA	RDI
Blower	Min	Max	Min	Max	Sup	Param.	Time	Time	Time	Time	Time	Time							
0/0/0	0	5	8	16	0		61.0	61.0	61.0	0.0	0	13	0	0	0	0	8.6	0	12.8
4/7/0	0	5	8	16	0		98.0	100.0	72.0	26.5	0	14	0	0	0	0	8.6	0	6.7
3/0/1	0	5	8	16	0		22.0	32.0	32.0	0.0	0	2	0	0	0	0	3.8	0	3.8
3/0/2	0	3	8	16	2		1.5	1.5	1.5	0.0	0	0	0	0	0	0	0.0	0	0.0
4/10/2	0	5	8	16	0		0.5	0.5	0.5	0.0	0	0	0	0	0	0	0.0	0	0.0

Polysomnography Reports

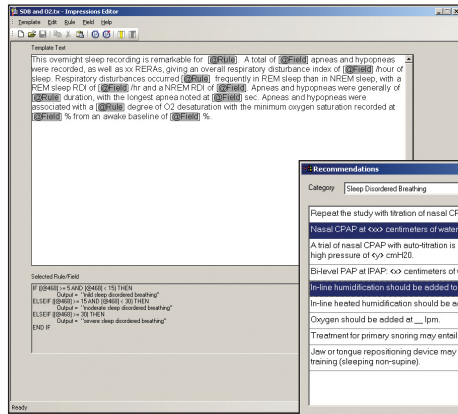
Customize your reports using the many tools available in MS WORD, including logos, drop downs, and tables as well as the new Report Template Editor.

Report Template Wizard

It's never been easier to have report templates customized to your exact requirements. The **Report Template Editor** and the **Report Wizard**, (an MS Word plug-in), allows searches for the description of any one of literally thousands of possible statistics - to be used any way you wish.



Optional Features



Automatic Narrative Interpretations

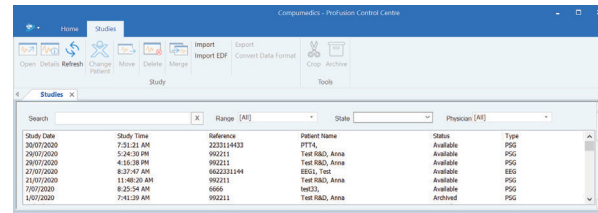
A significant time-saving feature for interpreting physicians. The Impressions Editor applies user-defined rules to automatically generate the desired interpretation of the numbers, e.g. severity of OSA dependent on the AHI or RDI.

PSG Online

Seamless integration with Nexus 360 to review and report study data remotely from a major browser.

Quick Insertion Of Recommendations

More time saved for the physician. Simply select one or more user-defined statements from a pre-configured drop-down list. For **neXus 360** users there is a two-way dialogue between **neXus 360 service** details and the report in Profusion Sleep. Physicians can make interpretations and recommendations in either application with each being automatically updated.

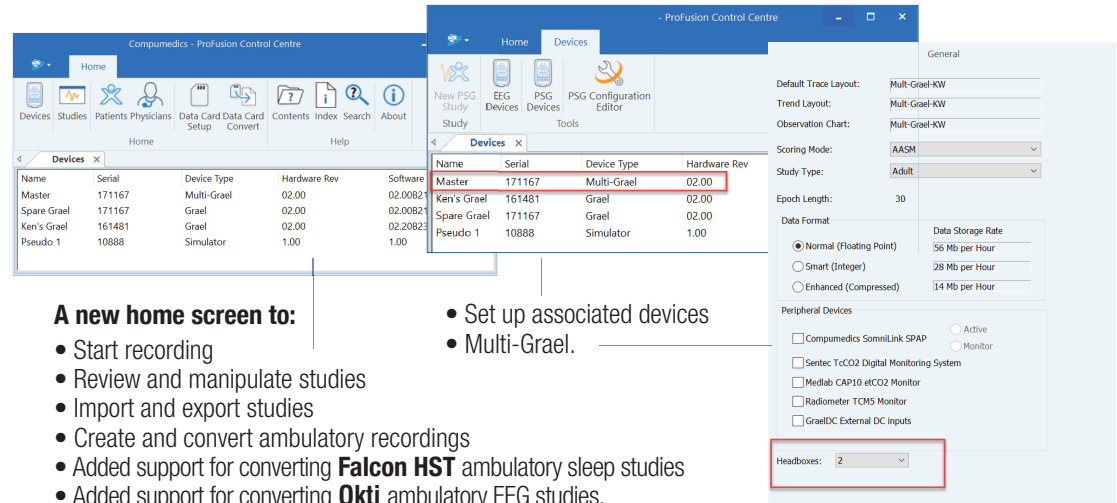


Profusion Small Database

Entry level study / patient database system for smaller clinics to help manage study and patient information. Patient details are now stored in a single Microsoft Access Database, making it easier to search and maintain data.

Profusion Control Centre

The new Profusion Control Centre provides a single tool to perform common operations such as starting new studies, setting up data cards and downloading studies.



A new home screen to:

- Start recording
- Review and manipulate studies
- Import and export studies
- Create and convert ambulatory recordings
- Added support for converting **Falcon HST** ambulatory sleep studies
- Added support for converting **Okti** ambulatory EEG studies.

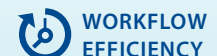
- Set up associated devices
- Multi-Graef.



profusion
neXus 360™

Introducing Compumedics Profusion neXus 360, the next generation of Profusion neXus.

Built on the proven Profusion neXus platform with more than 15 years of customer use and thousands of users, Profusion neXus 360 offers the full functionality of Profusion neXus and more, in a **full web-based interface**.



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