# Noxturnal US 7.1.1

Release Bulletin

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Nox T3s®, Nox A1s®, Nox C1 and Noxturnal® are manufactured by:

Nox Medical ehf
Katrinartuni 2
IS - 105 Reykjavík
Iceland
Website: www.noxmedical.com

nox medical

## Overview

This Release Bulletin announces the release of the following Noxturnal software and manual

- Noxturnal US – **7.1.1 – 39309**
- Noxturnal US Manual v. 4.4

The main aim of this release is to introduce Noxturnal 7.1.1 which focuses on addressing key feedback from the market since the latest Noxturnal release. Main improvements are towards scenarios with multi-site setup and large datasets focused on:

- Improvements of indexing the recording library to prevent Noxturnal freezing
- Improve handling of moving a bulk of studies between folders
- Study archiving improvements to prevent loss of studies during archiving process
- Handling network instability to reduce likelihood of lost scoring.

Other improvements are focused on improving stability for Nox Connect (cloud platform) interaction and adding the Sleep Time Tool for improved visualization and simplifying manual review of sleep time based off body position and actigraphy.

Updates to the Noxturnal Manual includes instructions for improved cybersecurity of the Noxturnal software.

## Downloading Software

The software can be downloaded from different download locations and is available on the Nox Support Site.

**Noxturnal US**

[www.noxmedical.com/download](www.noxmedical.com/download)

[Noxturnal US – Using Dropbox](Noxturnal US – Using Dropbox)

# Improvements in Noxturnal 7.1.1

## Sleep Time Tool

The Sleep Time Tool has been integrated into the Noxturnal software, providing users with an easier way to manually review and update the Sleep Time from a Nox T3/T3s study. The main goal is to allow for a manual inclusion of supplementary information, such as patient movement, in the Sleep Time calculation.

### Step 1 – Run the Sleep Time Tool

Running this tool maps the body position (Upright/Non-Upright) to an initial sleep staging profile. Each 30-second epoch is scored as Wake or Sleep. If the majority of a 30-second epoch is scored from body position as Upright, the epoch is scored as Wake; otherwise, it is scored as Sleep.



*Figure 1: After running the Sleep Time Tool, the Sleep Stages Hypnogram is drawn and the Sleep Parameter doughnut graph is updated on the recording results page*
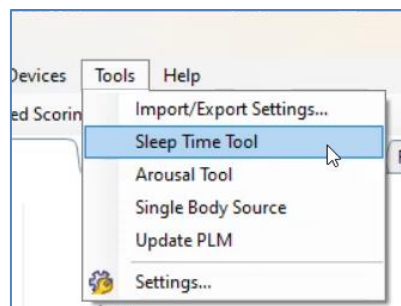
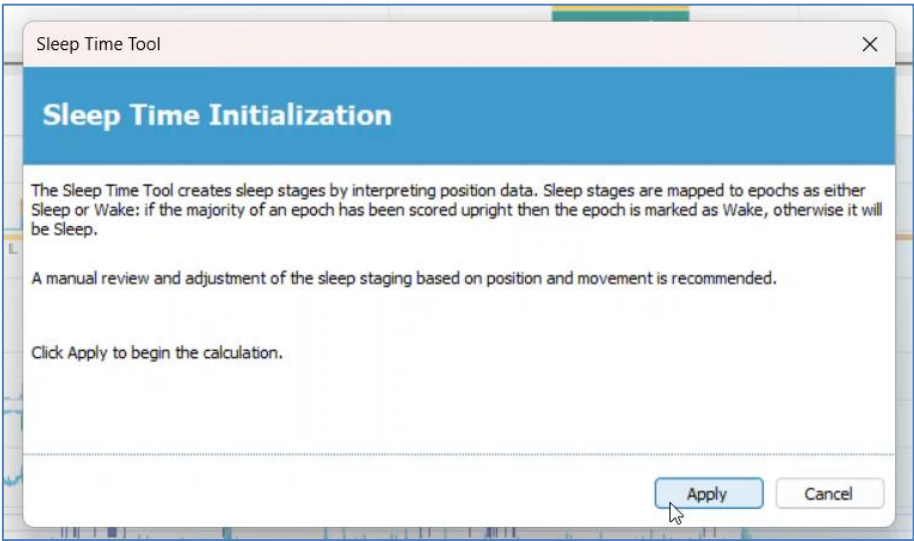

*Figure 2: The Sleep Time Tool is accessible under Tools*

*Figure 3: To run the Sleep Time Tool the user selects **Apply** from the instruction window*

## Step 2 – Manual Editing

If the user wishes to include the movement information from the sleep study to affect the reported Sleep Time, it is possible to manually review the study and convert epochs containing movement events from Sleep to Wake.
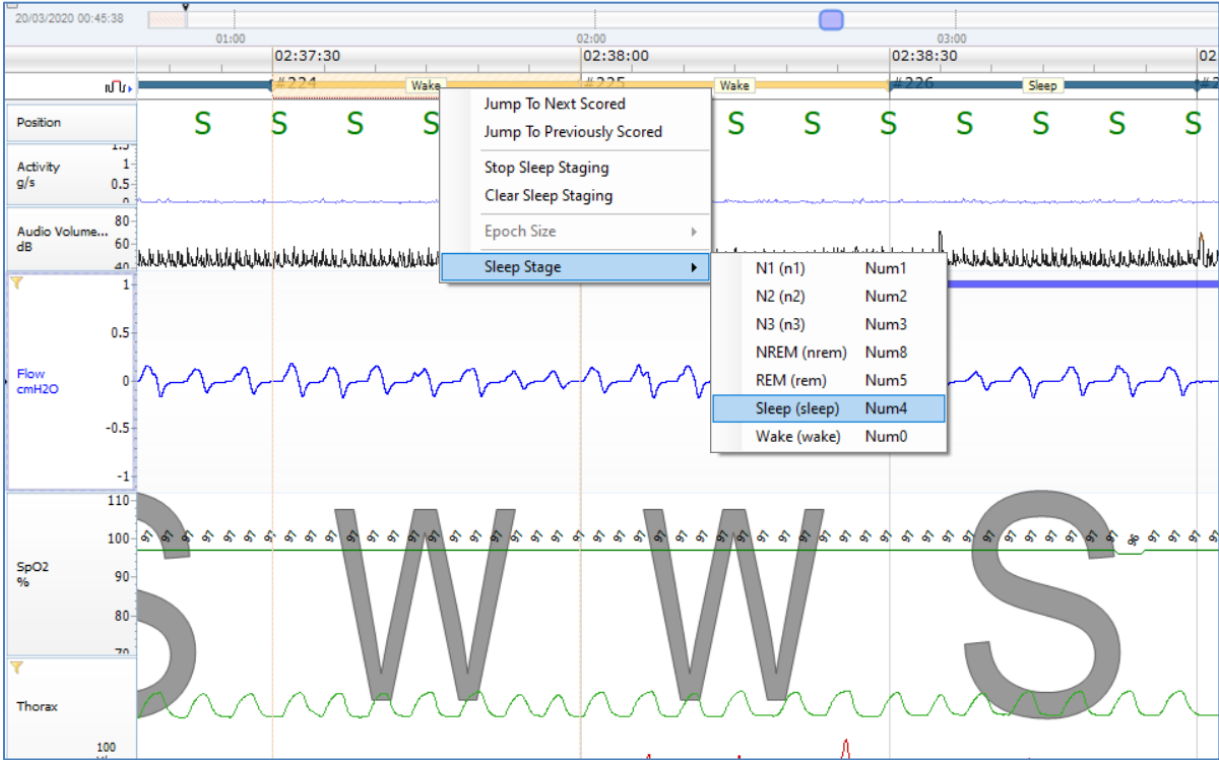


*Figure 4: The User can manually review and change sleep stages from the signal sheet*

## Step 3 - Updating Report Parameters

A new report parameter has been added to the Noxturnal software. This parameter calculates Sleep Time as the analysis time, excluding any part of the study that includes Upright body position and Movement events. This parameter can be added to a customized Noxturnal report.
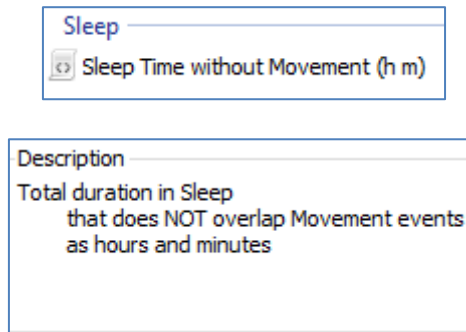


*Figure 5:   The new report parameter and its description in the Noxturnal report manager.*

By default, Noxturnal will continue to use Upright/Non-Upright body position as the basis for estimating sleep time.

# Upgrade Recommendation and workarounds for Nox Users

## Noxturnal Upgrade Wizard

### Noxturnal US 7.1.1

**Upgrading from Noxturnal US 6.x.x**

The Upgrade wizard will pop up with information if the user wants to maintain old user settings or if they want to do a fresh install.

**Upgrading from version 5.x or older**

If upgrading in the US market from a version 5.x or older consider these upgrade instructions here.

## Older Noxturnal Versions

If users are working on an older version of Noxturnal (3.X and 4.X) it is recommended to do a fresh install and setup of the software since so many things have changed in recent releases and updating on top will create more problems than it solves.