

Download data

1. Connect the device to the computer, and open ActiLife software.
2. Select “Download”, the following window will pop up:

The screenshot shows the 'Download Options' dialog box. At the top, there is a 'Change Location...' button and a text field containing the path 'C:\Users\meish\Documents\ActiGraph\ActiLife\Downloads'. Below this is a checkbox for 'Use as Default Download Directory'. The 'Download Naming Convention' section has several radio button options: '<Serial Number> <Download Date>' (selected), '<Serial Number> <Start Date>', '<Subject Name> <Download Date>', '<Subject Name> <Start Date>', 'Serial Number', 'Subject Name', 'Prompt for Each Download', and 'Concatenate Custom Fields'. The 'Download Options' section includes a checkbox for 'Create Clinical Report on Download for ActiSleep Monitor(s)', a checked checkbox for 'Create AGD File: (Link)', an 'Epoch' dropdown set to '60 seconds', a '# of Axis' dropdown set to '3', and a button that says 'Select 1 sec for PLM analysis'. There are also checkboxes for 'Steps', 'Lux', 'Inclinometer', and 'Low Frequency Extension'. A 'Download All Devices' button is at the bottom right. Below the options is a checked checkbox for 'Add biometric and user information' and a table with the following data:

Gender	Height Feet	Height Inches	Weight (lbs)	Date of Birth	Race	Limb	Side	Dominance
Female	5	1	102	5/27/1996 3:39 PM	Asian / Pacific Islander	Waist	Right	Dominant

3. Change the location to “<need to specify later>”, select 60 seconds per epoch, 3 of axis, and choose “<need to specify later>” as your Download Naming Convention.
4. Double check each information and click “Download All Devices”.

Merge file

1. Choose “Tools” -> Merge file
2. Select Dataset 1&2 (if there are more than 2 dataset, merge the first two, and repeat this process)
3. Click “Merge”.

Merge AGD Datasets

Select AGD datasets to merge.

Dataset # 1

Select Dataset... ..\TAS1H47190954 2021-02-02 10-10-196

Device: TAS1H47190954, Link, (1.7.2)
Epoch Length: 60 sec
Mode: Axis1, Axis2, Axis3, Steps, Lux, Incline

2/2/2021 10:03:00 AM 2/2/2021 10:10:00 AM

Dataset # 2

Select Dataset... ..\TAS1H47190954 2021-02-17 07-38-406

Device: TAS1H47190954, Link, (1.7.2)
Epoch Length: 60 sec
Mode: Axis1, Axis2, Axis3, Steps, Lux, Incline

2/2/2021 10:12:00 AM 2/17/2021 7:38:00 AM

Merged Dataset

Start: 2/2/2021 10:03:00 AM End: 2/17/2021 7:38:00 AM

— Dataset 1 — Dataset 2

2/4/2021 2/6/2021 2/8/2021 2/10/2021 2/12/2021 2/14/2021 2/16/2021

Which serial #, device type and firmware version would you like the resultant file to use?

TAS1H47190954, Link, (1.7.2)
 TAS1H47190954, Link, (1.7.2)

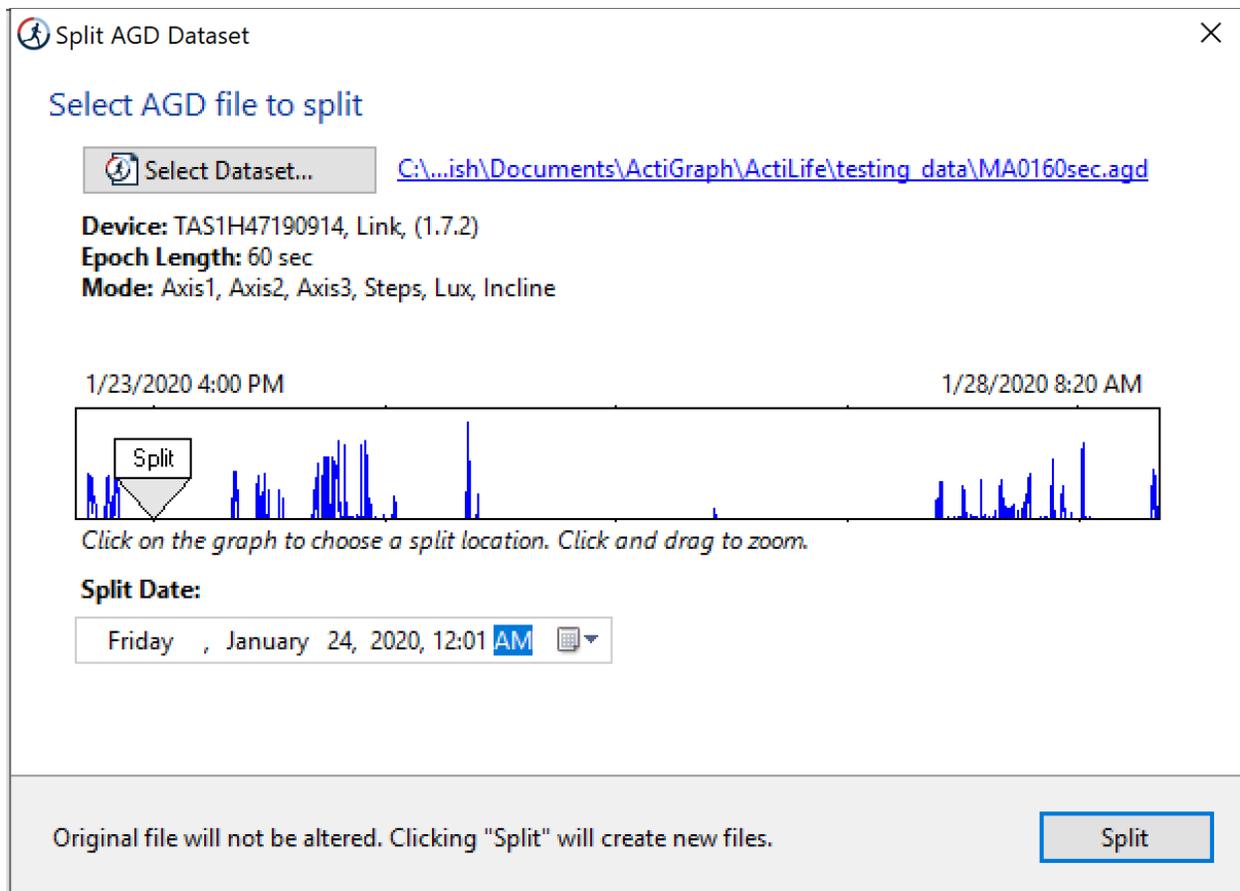
Click "Merge" to create a new merged dataset. Original files will not be altered. Merge

For the final exported file, name it

Trimming file

*this is for one individual subject

1. Choose "Tools" -> "Split AGD"
2. Follow the instruction to load your data file
3. For defining the start date of your data, select 12:01 am on the first day of assessment; click "Split" and save the **subjNUM_B_.agd**



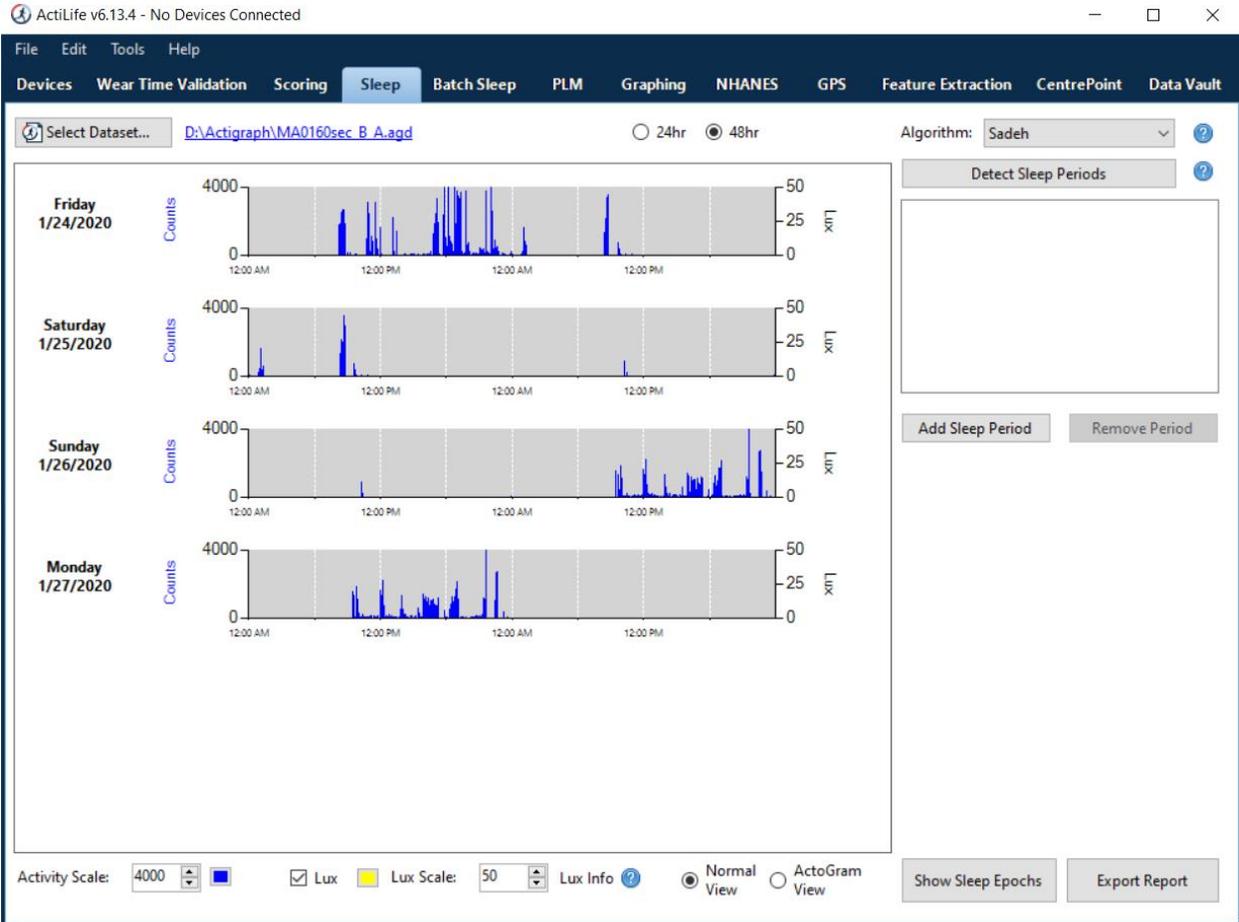
4. Again, choose "Tools" - "Split AGD"
5. Load file "subjNUM_B.agd"
6. For defining the end date and time for the data, select 12:00 am on the seventh day; click "Split", then save "subjNUM_A_B.agd"

Data processing

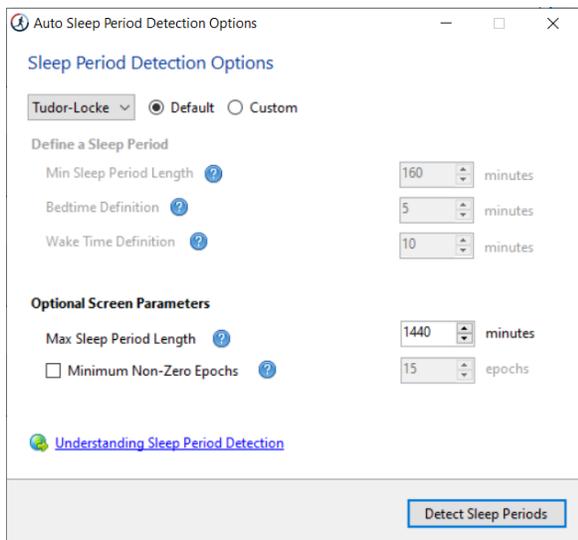
Sleep detecting

*Before you define the sleep period, make a copy of the AGD file.

1. Go to the **Sleep** tab

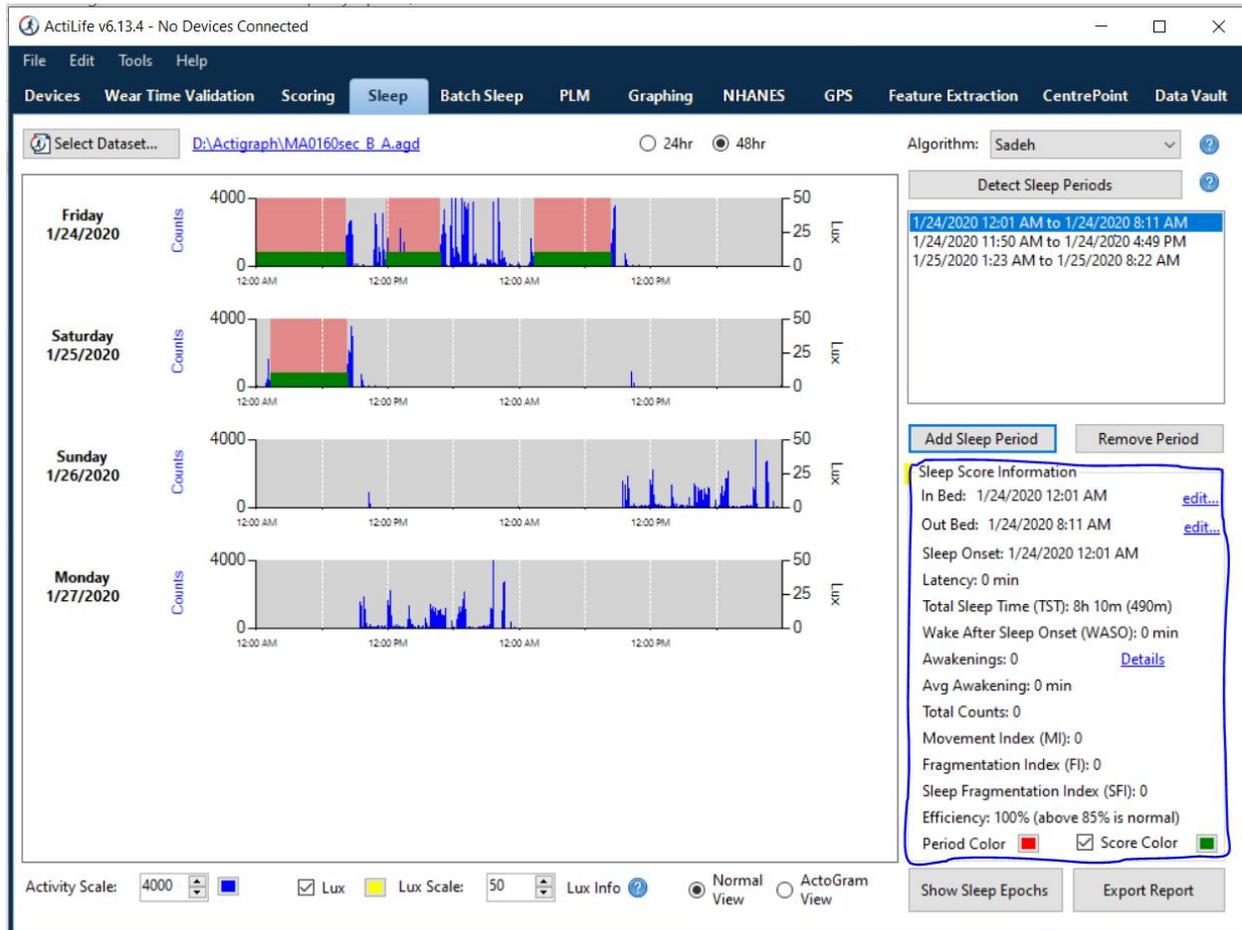


2. Select the “Detect Sleep Period” (the upper right corner), and go with the default setting.



3. The Pink-Green bars show the sleep period the software has detected as below:
Use **sleep log** of the participant, check every sleep period.

In the blue circled area, you can find the information of each sleep period and edit;
You can also add/remove sleep period.



4. Then click “Export Report” and check “create sleep csv”;

Wear Time Validation

*After you defined the sleep period, you can see a little blue moon when you load in the data

1. Choose “Choi(2011)” and set up “Custom” settings:
 - Minimum length: 90mins;
 - Small window length: 30mins;
 - Spike tolerance: 2mins;
2. Set up “Optional screen parameters”
 - Check “Minimum wear time per day”, set as 600 mins;
 - Choose “Mark as non-wear time” as Sleep period options;
3. Click “Calculate”

File Edit Tools Help

Devices **Wear Time Validation** Scoring Sleep Batch Sleep PLM Graphing NHANES GPS Feature Extraction CentrePoint Data Vault

Choi (2011) Default Custom Load Defaults Add Dataset(s)... Remove Selected Files loaded: 1

Define a Non-Wear Period

Minimum Length: 90 minutes

Small Window Length: 30 minutes

Spike Tolerance: 2 minutes

Use Vector Magnitude

Optional Screen Parameters

Ignore wear periods less than: 0 Minutes

Minimum wear time per day: 600 Minutes

Minimum days of valid wear time: 0

Minimum weekdays of valid wear time: 0

Minimum weekend days of valid wear time: 0

Sleep Period Options: Mark As Non Wear Time

Evaluate Wear Sensor Data (if available)

[Understanding Wear Time Validation](#)

[Where did we get our Wear Time Validation defaults?](#)

[What is the Wear Preview dialog?](#)

<input checked="" type="checkbox"/>	Data Set	Subject Name	Serial Number	Details	Validated Data?	Has Wear Sensor Data?
<input checked="" type="checkbox"/>	 MA0160sec_B_A.gad	MA0160sec_B_A	TAS1H47190914		No	No

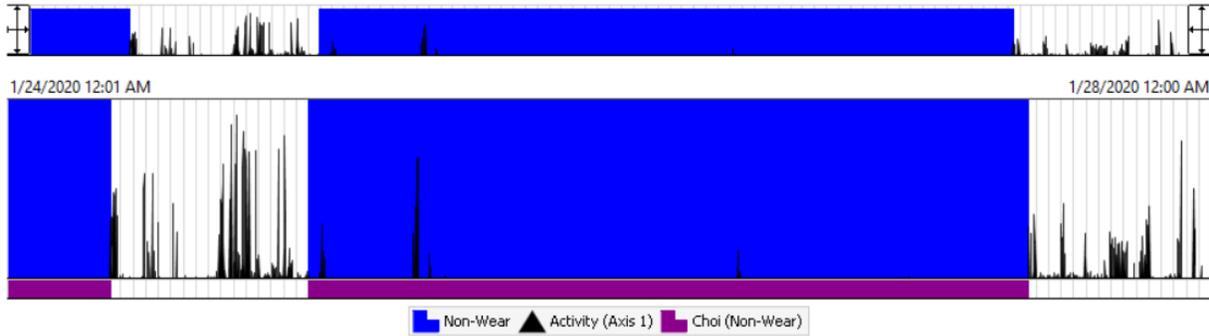
Calculate Show Preview Graphs Score Export

- The following calculated result will pop up after you clicked calculate, and an orange icon will appear (besides the blue moon icon, which means the wear time was defined for this data).

Validate Wear Periods and Wear Sensor Data

Filename	Subject Name	File Length	Choi (Non-Wear)	Total Wear Time
MA0160sec_B_A.agd	MA0160sec_B_A	3D 23H 59M 0S	2D 17H 36M 0S (68%)	1D 6H 23M 0S (32%)

MA0160sec_B_A.agd



All Periods

Type	Date/Time Start	Date/Time End	Length		
Choi (Non-Wear)	1/24/2020 12:01 AM	1/24/2020 8:11 AM	8H 10M 0S	Set As Wear	
Choi (Wear)	1/24/2020 8:11 AM	1/25/2020 12:00 AM	15H 49M 0S		Set As Non-Wear
Choi (Non-Wear)	1/25/2020 12:00 AM	1/27/2020 6:00 AM	2D 6H 0M 0S	Set As Wear	
Choi (Wear)	1/27/2020 6:00 AM	1/27/2020 6:01 AM	1M 0S		Set As Non-Wear

[Open current file in Advanced Details](#)

Close

Scoring

1. Close the calculation result window, and click “score”, it will go to the scoring tab
2. Algorithms Settings:

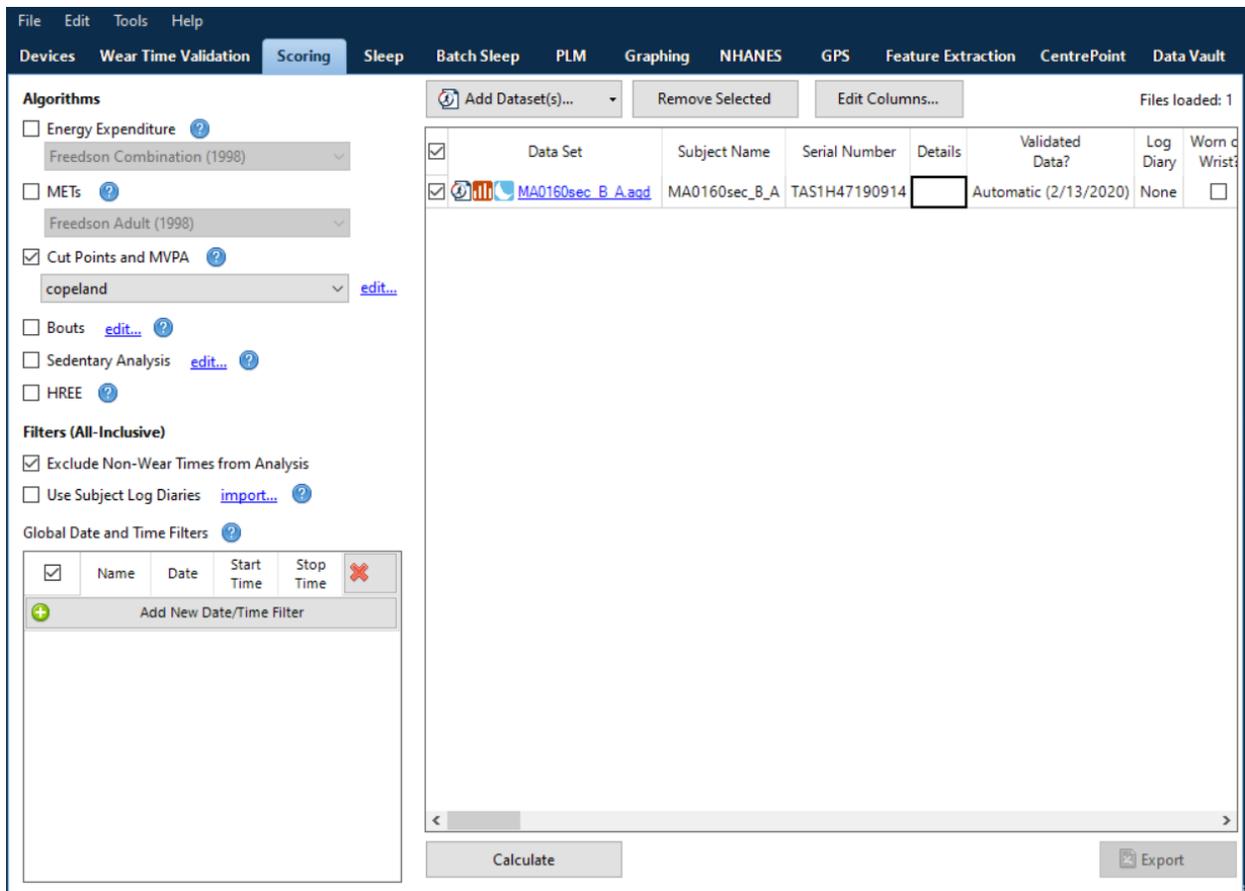
Uncheck “Energy Expenditure” & “METs” & “Bouts” & “Sedentary Analysis”

Choose “copeland” as the “Cut Points and MVPA”

Make sure “Exclude Non-Wear Times from Analysis” is checked;

*If there’s no “copeland” algorithm, create a new cut point set

3. Click “Calculate”



Export data

After calculation, click the “Export”
Uncheck “Add Hourly Breakdown”

Data Scoring Export Options ×

Select Export Options

Export Type: CSV ▾

Create Batch View file(s) with hourly/daily/summary details

- Add Summary Breakdown
- Add Daily Breakdown
- Add Hourly Breakdown
- Add Bout Breakdown
- Add Sedentary Analysis Breakdown
- Add Wear Time Validation
- Add Header Definition
- Add Header Definitions as Comments
- Show Non-Wear Hours and Days
- Add Calculated Sleep Score

Export Data Scoring Grid to .csv file

Export...