

Actigraph

SPSS SYNTAX: Converting and Reformatting the
Excel File



File Edit View Data Transform Analyze Graphs Utilities Add-ons Run Tools Window Help

Active: DataSet0

```

*this program will p...
*before running, edi...
*before running, use...
*change 6wks to the ...
file handle
file handle
file handle
GET DATA
EXECUTE.
compute
compute
compute
AGGREGATE
execute.
compute
RECODE
value labels
variable labels
COMPUTE
formats
execute.
MATCH FILES
EXECUTE.
SORT CASES
CASESTOVARS
execute.
rename variables
execute.
SAVE
execute.
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this program will process data for a single .agd file produced by Actigraph version 6.
before running, edit the paths in the file handle commands to match the location of your actigraph file.
before running, use the global replace function to change ## to the ID number.
change 6wks to the appropriate time period (W3, M6, etc.).

file handle inputExcel/name=P:\P20\Data from pilot studies\Janet\Nieveen\ACTIGRAPH_PROCESSED FILES\6WK EXCEL FILES\ID ## w6 hourly.xlsx'.
file handle index/name=C:\Users\pjdizona\Desktop\index.sav'.
file handle final/name=P:\P20\Data from pilot studies\Janet\Nieveen\ACTIGRAPH_PROCESSED FILES\6WK EXCEL FILES\ID ## w6 actigraph restructured.sav'.

GET DATA /TYPE=XLSX
/FILE='inputExcel'
/SHEET=name 'Hourly'
/CELLRANGE=full
/READNAMES=on
/ASSUMEDSTRWIDTH=32767.
EXECUTE.

compute date2=number(date, ADATE10).
compute Axis1Counts2=number(Axis1Counts, f8.0).
compute VectorMagnitudeCounts2=number(VectorMagnitudeCounts, f7.0).

AGGREGATE
/OUTFILE=*
/BREAK=Date2
/cals=SUM(kcals)
/axis1cnts=sum(Axis1Counts2)
/vmcnts=SUM(VectorMagnitudeCounts2)
/sed=SUM(Sedentary)
/life=SUM(Lifestyle)
/lght=SUM(Light)
/mod=SUM(Moderate)
/vvig=SUM(Vigorous)
/vvig=SUM(VeryVigorous)
/prop_notworn=FLT(kcals .5)
/dywk=first(DayofWeekNum).
execute.
compute hwrn=24 - 24*prop_notworn.
RECODE dywk (1=2) (2=3) (3=4) (4=5) (6=7) (7=1).
value labels dywk 1 'Sun' 2 'Mon' 3 'Tue' 4 'Wed' 5 'Thu' 6 'Fri' 7 'Sat'.
variable labels dywk 'day of week'/sed 'total mins in sedentary'/life 'total mins in lifestyle'
/lght 'total mins in light'/mod 'total mins in moderate'/vig 'total mins in vigorous'/vvig 'total mins in very vigorous'
/axis1cnts 'axis 1 (vertical axis) activity counts'
/vmcnts 'vector magnitude activity counts'
/cals 'activity kcals'
/hwrn 'no. hours actigraph worn'.
COMPUTE ID = ##.
formats id (f4.0) date2(ADATE10) cals (f5.0) axis1cnts (f8.0) vmcnts(f7.0) hwrn (f2.0) sed life lght mod vig Vvig (f4.0) dywk (f1.0).
execute.

```

Open the SPSS syntax

Instructions

1. Open the SPSS syntax file named “actigraph v6 processing and restructuring_generic_Sept2012” and save a copy under a different name.
2. In the copy, use the Edit>Replace All to replace ## with the ID number and @time with the time point (W3, M6, etc.) for the case you are processing.
3. The first 3 commands in this file define the full paths of the files to be read or created by the program. Edit these commands to match the locations of your files.
 - A. For example, the command below (highlighted for emphasis) appears in the original file as:
`file handle inputExcel/name='E:\actigraph data\actigraph6 sept2012\ID## @time hourly.xlsx'.`
 - B. When we use the global search and replace, it will be changed to:
`file handle inputExcel/name='E:\actigraph data\actigraph6 sept2012\ID21 W6 hourly.xlsx '.`
 - C. If this file is found on your computer on drive K: in a directory named “actigraph files,” you would need to also change the command to the following:
`file handle inputExcel /name='K:\actigraph files\ID21 W6 hourly.xlsx'.`



Instructions



4. Be sure that a copy of the file named “**index.sav**” is located in the same folder as the Excel files to be processed (note that “index.sav” is never renamed with the ID number and data wave).
5. After editing these lines and replacing all occurrences of ## and @time, run the syntax program (make sure nothing in the program is highlighted, then choose Run < All from the menu bar).
6. A data file will be produced and saved that should contain one line of data beginning with the case ID and number of days worn for that data wave, followed by 12 variables (shown below for day 1) for each day the actigraph was worn:

ID, W6nodys, W6d1date, W6d1dywk, W6d1hwrn, W6d1cals, W6d1axis1cnts,
W6d1vmcnts, W6d1sed, W6d1life, W6d1lght, W6d1mod, W6d1vig, W6d1Vvig

You may also see a warning like the following in your output file:

Warnings

Variable Vvig is constant in every case group, but was not specified in the FIXED subcommand.

This is not a problem and can be ignored. It simply means that this variable had a value of zero on all days the Actigraph was worn.

If there are fewer than 7 days of Actigraph data, you will also get an error message about missing IDs for some cases. This message can be ignored.

Note: If SPSS is unable to read the Excel file that Actilife produces, open it with Excel and resave from within the Excel program before processing it in SPSS.

IBM SPSS Statistics Data Editor window showing a dataset with 17 variables and 5 rows. The first row contains data for ID 4001, and the remaining rows are empty.

	ID	m3nodys	m3d1date	m3d1dywk	m3d1hwrn	m3d1cals	m3d1axis1cnts	m3d1vmcnts	m3d1sed	m3d1life	m3d1lght	m3d1mod	m3d1vig	m3d1Vvig	m3d2date	m3d2dywk
1	4001	7	07/25/2012	4	13	637	398237	775463	1214	54	111	42	15	3	07/26/2012	5
2																
3																
4																
5																

After running, a single line of data will be seen in the SPSS window. When these are all created, you can merge them into one dataset for analysis.