

Filename must be: 'G#####_V#N# AidRLS-Events SleepStage'

RemLogic Event Export
 Patient: G90710_V1N1 AidRLS
 Patient ID: G90710_08/27/2013
 Recording Date: 8/27/2013

Events Included:
 SLEEP-REM
 SLEEP-S0
 SLEEP-S1
 SLEEP-S2
 SLEEP-S3
 SLEEP-UNSCORED

14-line header (Skipped while reading) contains the types of events (sleep stage, apnea, arousal, etc)

8th character connotes sleep stage

Need exact format (including the 'T' delimiter in the middle)! YYYY-MM-DD:HHmmSS (19 total chars)

Time [hh:mm:ss]	Event	Duration[s]
2013-08-27T23:14:15.000000	SLEEP-S0	30
2013-08-27T23:14:45.000000	SLEEP-S0	30
2013-08-27T23:15:15.000000	SLEEP-S0	30
2013-08-27T23:15:45.000000	SLEEP-S0	30
2013-08-27T23:16:15.000000	SLEEP-S0	30
2013-08-27T23:16:45.000000	SLEEP-S0	30
2013-08-27T23:17:15.000000	SLEEP-S0	30
2013-08-27T23:17:45.000000	SLEEP-S0	30
2013-08-27T23:18:15.000000	SLEEP-S0	30
2013-08-27T23:18:45.000000	SLEEP-S0	30
2013-08-27T23:19:15.000000	SLEEP-S0	30
2013-08-27T23:19:45.000000	SLEEP-S0	30
2013-08-27T23:20:15.000000	SLEEP-S0	30
2013-08-27T23:20:45.000000	SLEEP-S0	30
2013-08-27T23:21:15.000000	SLEEP-S0	30
2013-08-27T23:21:45.000000	SLEEP-S0	30
2013-08-27T23:22:15.000000	SLEEP-S0	30
2013-08-27T23:22:45.000000	SLEEP-S0	30
2013-08-27T23:23:15.000000	SLEEP-S0	30
2013-08-27T23:23:45.000000	SLEEP-S0	30
2013-08-27T23:24:15.000000	SLEEP-S0	30

Black boxes are whitespace delimiters

Filename must be: 'G#####_V#N# AidRLS-Events Apnea'

RemLogic Event Export
 Patient: G99918_V1N1 AidRLS
 Patient ID: G99918_02/25/2015
 Recording Date: 2/25/2015

Events Included:
 APNEA
 APNEA-CENTRAL
 APNEA-MIXED
 APNEA-OBSTRUCTIVE
 DESAT
 HYPOPNEA
 HYPOPNEA-CENTRAL
 HYPOPNEA-MIXED
 HYPOPNEA-OBSTRUCTIVE
 PEDIATRIC-RESP-BASELINE
 RESP-MOVEMENT-STOP
 SNORE

20-line header (Skipped while reading)

Time [hh:mm:ss]	Event	Duration[s]
2015-02-25T22:42:00.000000	HYPOPNEA	13
2015-02-25T22:42:08.000000	DESAT	11
2015-02-25T22:42:18.000000	APNEA-CENTRAL	13
2015-02-25T22:42:31.000000	DESAT	15
2015-02-25T23:07:04.000000	APNEA-CENTRAL	13
2015-02-25T23:07:17.000000	DESAT	14
2015-02-25T23:38:08.000000	HYPOPNEA	14
2015-02-25T23:38:19.000000	DESAT	15
2015-02-25T23:38:56.000000	HYPOPNEA	15
2015-02-25T23:39:00.000000	DESAT	25
2015-02-25T23:41:25.000000	HYPOPNEA	15
2015-02-25T23:41:30.000000	DESAT	24
2015-02-25T23:42:57.000000	DESAT	30
2015-02-25T23:43:00.000000	HYPOPNEA	20
2015-02-25T23:45:20.000000	DESAT	42
2015-02-25T23:45:28.000000	HYPOPNEA	31
2015-02-25T23:46:27.000000	HYPOPNEA	21
2015-02-25T23:46:33.000000	DESAT	29
2015-02-25T23:47:19.000000	HYPOPNEA	18
2015-02-25T23:47:24.000000	DESAT	28

Filename must be: 'G#####_V#N# AidRLS-Events Arousal'

RemLogic Event Export
Patient: G99918_V1N1 AidRLS
Patient ID: G99918_02/25/2015
Recording Date: 2/25/2015

Events Included:
AROUSAL
AROUSAL-APNEA
AROUSAL-DESAT
AROUSAL-HYPOPNEA
AROUSAL-LM
AROUSAL-PLM
AROUSAL-RERA
AROUSAL-RESP
AROUSAL-SNORE
AROUSAL-SPONT

18-line header (Skipped while reading)

Time [hh:mm:ss]	Event	Duration[s]
2015-02-25T22:20:35.000000	AROUSAL 3	
2015-02-25T22:22:26.000000	AROUSAL 3	
2015-02-25T22:42:12.000000	AROUSAL-RESP 1	
2015-02-25T23:09:35.000000	AROUSAL 3	
2015-02-25T23:11:56.000000	AROUSAL 3	
2015-02-25T23:22:47.000000	AROUSAL 3	
2015-02-25T23:48:17.000000	AROUSAL-RESP 2	
2015-02-25T23:49:29.000000	AROUSAL-RESP 2	
2015-02-25T23:53:05.000000	AROUSAL-RESP 1	
2015-02-25T23:55:58.000000	AROUSAL-RESP 3	
2015-02-25T23:58:50.000000	AROUSAL-RESP 2	
2015-02-25T23:59:36.000000	AROUSAL-RESP 3	
2015-02-26T00:01:33.000000	AROUSAL-RESP 3	
2015-02-26T00:13:33.000000	AROUSAL-RESP 3	
2015-02-26T00:16:36.000000	AROUSAL-RESP 3	
2015-02-26T00:21:03.000000	AROUSAL-RESP 3	
2015-02-26T00:26:19.000000	AROUSAL-RESP 3	
2015-02-26T00:35:00.000000	AROUSAL-RESP 3	

If Arousal or Apnea text files are not present, the program will still run.

SleepStage, however, is necessary to create the hypnogram and the program will fail without it.

Upper-level directory containing folders with data exported from RemLogic

AidRLS, G90710_V1N1 - 8-27_2013	8/5/2015 3:03 PM	File folder
AidRLS, G39035_V1N1 - 7-30_2014	8/5/2015 3:03 PM	File folder
AidRLS, G23418_V1N1 - 5-28_2014	8/4/2015 2:46 PM	File folder
AidRLS, G58925_V1N1 - 1-15_2014	8/4/2015 11:30 AM	File folder
AidRLS, G88573_V1N2 - 7-25_2013	7/31/2015 1:49 PM	File folder
AidRLS, G13400_V1N2 - 3-21_2013	7/30/2015 10:39 AM	File folder
AidRLS, G99918_V1N2 - 2-26_2015	7/29/2015 2:04 PM	File folder
AidRLS, G24486_V1N1 - 2-12_2014	7/27/2015 10:24 AM	File folder
AidRLS, G30490_V1N1 - 11-5_2013	7/14/2015 4:25 PM	File folder
AidRLS, G26881_V1N2 - 11-8_2013	7/14/2015 4:25 PM	File folder
AidRLS, G88832_V1N1 - 4-10_2013	7/14/2015 10:28 AM	File folder
AidRLS, G21945_V1N1 - 8-13_2013	7/10/2015 5:11 PM	File folder
AidRLS, G99918_V1N1 - 2-25_2015	6/15/2015 2:04 PM	File folder
AidRLS, G91373_V1N2 - 5-3_2015	6/15/2015 2:03 PM	File folder
AidRLS, G56789_V1N2 - 2-19_2015	6/15/2015 2:01 PM	File folder
AidRLS, G56789_V1N1 - 2-18_2015	6/15/2015 2:00 PM	File folder
AidRLS, G20877_V1N2 - 4-15_2015	6/15/2015 1:59 PM	File folder
AidRLS, G07396_V1N1 - 7-25_2013	4/21/2015 2:37 PM	File folder
AidRLS, G18741_V1N2 - 9-25_2014	4/21/2015 11:38 AM	File folder
AidRLS, G09532_V1N2 - 5-30_2013	4/21/2015 11:38 AM	File folder
AidRLS, G99782_V1N2 - 12-18_2014	3/4/2015 10:34 AM	File folder
AidRLS, G99514_V1N2 - 11-15_2013	3/4/2015 10:34 AM	File folder
AidRLS, G98850_V1N2 - 1-16_2013	3/4/2015 10:33 AM	File folder
AidRLS, G98446_V1N2 - 6-21_2013	3/4/2015 10:31 AM	File folder
AidRLS, G94982_V1N2 - 6-11_2014	3/4/2015 10:23 AM	File folder
AidRLS, G93914_V1N2 - 2-7_2014	3/4/2015 10:18 AM	File folder
AidRLS, G92037_V1N2 - 3-7_2014	3/4/2015 10:17 AM	File folder
AidRLS, G90710_V1N2 - 8-29_2013	3/4/2015 10:13 AM	File folder
AidRLS, G88832_V1N2 - 4-11_2013	3/4/2015 10:12 AM	File folder
AidRLS, G87101_V1N2 - 2-13_2014	3/4/2015 10:08 AM	File folder
AidRLS, G83896_V1N2 - 9-18_2014	3/4/2015 10:05 AM	File folder
AidRLS, G81356_V1N2 - 5-8_2014	3/4/2015 10:02 AM	File folder
AidRLS, G81096_V1N2 - 4-10_2014	3/4/2015 9:55 AM	File folder
AidRLS, G80287_V1N2 - 8-30_2013	3/4/2015 9:43 AM	File folder
AidRLS, G80028_V1N2 - 6-5_2014	3/4/2015 9:34 AM	File folder
AidRLS, G78151_V1N2 - 8-27_2014	3/3/2015 4:04 PM	File folder
AidRLS, G77488_V1N2 - 6-25_2014	3/3/2015 4:01 PM	File folder
AidRLS, G76051_V1N2 - 9-12_2013	3/3/2015 3:57 PM	File folder
AidRLS, G73879_V1N2 - 7-18_2013	3/3/2015 3:47 PM	File folder
AidRLS, G73620_V1N2 - 6-26_2014	3/3/2015 3:45 PM	File folder
AidRLS, G72811_V1N2 - 10-2_2014	3/3/2015 3:43 PM	File folder

Lower-level directory with Traces.edf, SleepStage, Arousal, and Apnea (which was not recorded for this patient—the program will run without it)

Name	Date modified	Type	Size
G98446_V1N2 AidRLS-Events Arousal	3/4/2015 10:31 AM	Text Document	10 KB
G98446_V1N2 AidRLS-Events SleepStage	4/4/2014 11:32 AM	Text Document	38 KB
G98446_V1N2	3/4/2015 12:56 PM	MATLAB Data	609,346 KB
Recording.esrc	4/4/2014 9:46 AM	ESRC File	8 KB
Traces	4/4/2014 11:31 AM	EDF File	504,620 KB

```
1 % NAME: Allen_Ebm_2_Matlab
2 % FACILITY: EDF and Matlab
3 % SEARCH:
4 % LANGUAGE: Matlab
5 % AUTHOR: Francis P. Sgambati
6 % INSTITUTION: The Johns Hopkins University
7 % DIVISION: School of Medicine
8 % DEPARTMENT: Pulmonary and Critical Care
9 % CENTER of Interdisciplinary Sleep Research and Education (CISRE)
10 % CREATED: January 2014
11 %
12 % ARGUMENTS: EDF file exported from RemLogic containing an unknown number
13 % of channels
14 %
15 % RETURNS: A Matlab file containing a structure of the EDF data.
16 %
17 % MODIFIED: September, 2014
18 %
19 % DESCRIPTION: This program uses EDF_read_jhmi_rev_101 to convert an EDF
20 % file into a Matlab file. This particular script uses rules created by
21 % CISRE which creates a unique set of identifiers. Most notably it now is
22 % able to accommodate additional "SIT" recordings.
23
24 %% This is a test environment
25 clear all; close all; fclose('all'); clc;
26 tic
27
28 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
29 ProtocolDir = 'Y:\'; %
30 modDateAfter = '5-Aug-2015 15:03:00'; %
31 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
32
```

ProtocolDir must be set to the upper-level directory shown on the left. All folders that were modified after modDateAfter will be converted, producing the G#####_V#N# MATLAB Data file