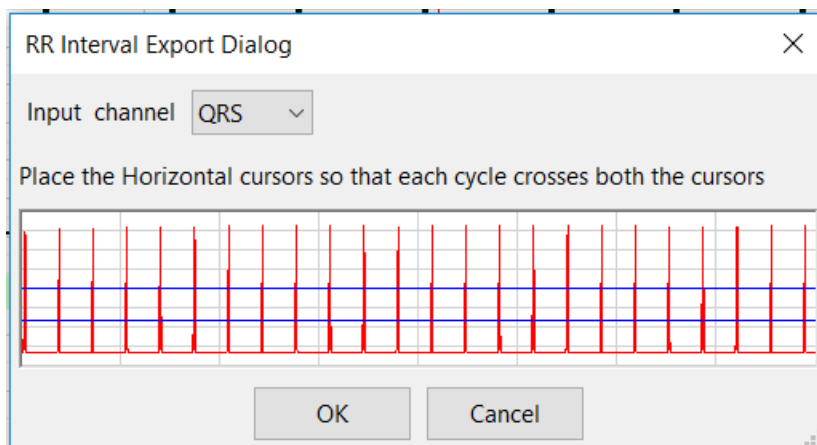
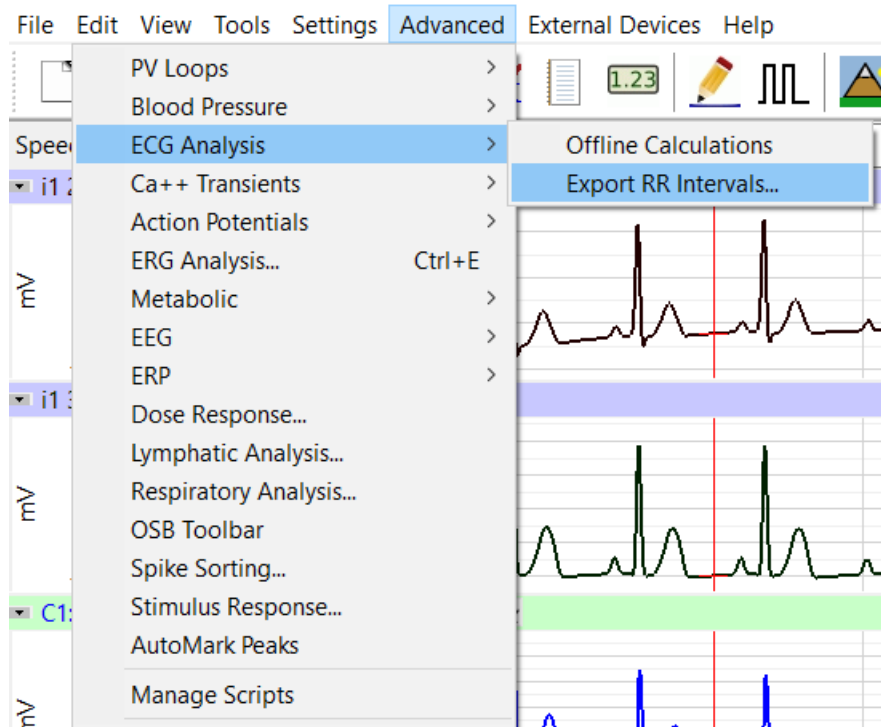


Analyzing LabScribe data with Kubios HRV

Kubios HRV - Heart Rate Variability Analysis Software can be downloaded from <http://kubios.uef.fi/>
Kubios HRV is a free, advanced tool for studying the variability of heart beat intervals.

This technote shows how ECG data recorded with LabScribe can be analyzed using Kubios HRV.

1. Record ECG data with LabScribe.
2. Create a QRS detector channel using the Cardiac→QRS detector function.
3. Change the Title of the created QRS channel : “QRS”
4. Choose Advanced→ECG Analysis→Export RR Intervals.



3. Choose the Channel: QRS
4. Place the cursors so that the cycles in the QRS channel will be detected.
5. Click OK.

6. Name the exported file, ie “RR Interval.csv” and click Save.
6. Launch Kubios HRV, and choose File→Open.
7. Choose the exported RR-Interval file ie RR Interval.csv
8. Click “Open”.
9. Kubios HRV will now analyze and display the data.

Kubios HRV Standard - C:\Users\ashish\Desktop\RR Intervals.csv

File View Help

File Info
 File name: RR Intervals.csv
 Rec. date: xx/xx/xx
 Rec. time: xx:xx:xx
 Channel label
 Sampling rate (Hz):
 Data length (h:min:s): 00:01:00

RR Interval Series Options
 Artifact correction: none [Apply] [Undo]
 Samples for analysis: 1 [Add] [Remove]
 Sample 1
 Start (h:min:s): 00:00:00
 Length (h:min:s): 00:01:00
 Remove trend components
 Method: Smoothn priors
 Lambda: 500 $f_c = 0.035$ Hz

VIEW RESULTS Time-Domain Frequency-Domain Nonlinear Time-Varying Auto-refresh results Refresh

Time-Domain Results

Variable	Value	Units
Mean RR*	66.253	ms
STD RR (SDNN)	0.76713	ms
Mean HR*	905.82	beats/min
STD HR	12.386	beats/min
Min HR	882.39	beats/min
Max HR	937.71	beats/min
RMSSD	0.44125	ms
NNxx	0	
pNNxx	0 %	
HRV triangular index	NaN	
TINN	4.0000	ms

Distributions*

Set fixed axes limits
 RR (s) [] - []
 HR (bpm) [] - []

* Calculated from the non-detrended selected RR series.