

EMG Envelope

If you are using a version of Visual3D older than 4.94, you will need to use the following commands to specify the frame window in seconds (as opposed to frames).

```
! -----  
! apply a bandpass filter to the EMG signals  
! -----  
Highpass_Filter  
/Signal_Types=ANALOG  
/Signal_Names=EMG1+EMG2+EMG3  
/Signal_Folder=ORIGINAL  
! /Result_Suffix=  
! /Result_Folder=PROCESSED  
! /Filter_Class=BUTTERWORTH  
/Frequency_Cutoff= 50  
/Num_Reflected= 0  
/Total_Buffer_Size=100  
/Num_Bidirectional_Passes=1  
;  
  
Lowpass_Filter  
/Signal_Types=ANALOG  
/Signal_Names=EMG1+EMG2+EMG3  
/Signal_Folder=PROCESSED  
! /Result_Suffix=  
! /Result_Folder=PROCESSED  
! /Filter_Class=BUTTERWORTH  
/Frequency_Cutoff= 500  
/Num_Reflected= 0  
/Total_Buffer_Size=100  
/Num_Bidirectional_Passes=1  
;  
  
! -----  
! copy the analog rate from the c3d parameter  
! to a metric value  
! -----  
  
Metric_From_Parameter  
/METRIC_NAME=ANALOG_RATE  
/PARAMETER_GROUP=ANALOG  
/PARAMETER_NAME=RATE  
;  
  
! -----  
! compute the number of frames equivalent to  
! a 100 ms window
```

```
! -----  
  
Evaluate_Expression  
/EXPRESSION=1+0.1*METRIC::PROCESSED::ANALOG_RATE  
/RESULT_NAME=RMS_FRAMES  
/RESULT_TYPE=METRIC  
! /RESULT_FOLDER=PROCESSED  
;  
  
! -----  
! create a pipeline parameter of the RMS window  
! -----  
  
Set_Pipeline_Parameter_To_Data_Value  
/PARAMETER_NAME=RMS_FRAMES  
/SIGNAL_TYPES=METRIC  
/SIGNAL_NAMES=RMS_FRAMES  
/SIGNAL_FOLDER=PROCESSED  
;  
  
! -----  
! compute a moving rms with a window of 100 ms  
! -----  
  
Moving_RMS  
/SIGNAL_TYPES=ANALOG  
/SIGNAL_NAMES=EMG1+EMG2+EMG3  
/SIGNAL_FOLDER=PROCESSED  
! /RESULT_SUFFIX=  
/RESULT_FOLDER=RMS  
/NUM_WINDOW_FRAMES=:RMS_FRAMES  
;
```

From:
<https://has-motion.com/wiki/> - Wiki Documentation Site

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Last update: **2024/07/17 15:45**

