

class_name
attribute1 : <i>attr1_type</i> attribute2 : <i>attr2_type</i>
method1() method2()

DSRawTimeSeries
<div>filename : <i>str</i></div> <div>mic_channel_names : <i>list</i> other_channel_names : <i>list</i></div> <div>T : <i>float</i> fs : <i>int</i> fs2 : <i>int</i> t : (T*fs,) <i>array</i> t2 : (T*fs2,) <i>array</i></div> <div>N_ch : <i>int</i> mic_data : (N_ch, T*fs) <i>array</i></div> <div>_read_mic_chs() _read_other_chs()</div> <div>calc_chs_mean()</div> <div>filter_data() estimate_peak_freq()</div> <div>calc_PSDs() export_wavs()</div>

root namespace
<div>P_REF : <i>float</i> DEFAULT_NDFT : <i>int</i> DEFAULT_NOVERLAP : <i>int</i> DEFAULT_WINDOW : <i>str</i></div> <div>_calc_spectral_centroid() calc_ac_power()</div>

salford_mic_arc Class Diagram

Red: functionality not implemented

MultiChannelPSD
<div>N_ch : <i>int</i> Noverlap : <i>int</i> window : <i>str</i> psd : (N_ch, Ndft//2+1) <i>array</i></div> <div>df : <i>float</i> fs : <i>int</i> Ndft : <i>int</i> freq : (Ndft//2+1,) <i>array</i></div> <div>psd_broadband : (N_ch, Ndft//2+1) <i>array</i></div> <div>peak_indices : (N_ch, N_peaks) <i>array</i> peak_lims : (N_ch, N_peaks, 2) <i>array</i></div> <div>overall_SPL : (N_ch,) <i>array</i> broadband_SPL : (N_ch,) <i>array</i></div> <div>peaks_SPL : (N_ch, N_peaks) <i>array</i> tonal_SPL : (N_ch,) <i>array</i></div> <div>calc_overall_SPL() calc_broadband_SPL()</div> <div>find_peaks() _find_peak_lims()</div> <div>calc_tonal_SPL() _calc_peaks_SPL()</div>

MultiFilePSD
<div>filenames : <i>list</i></div> <div>N_azim : <i>int</i> azim_angles : (N_azim,) <i>array</i></div> <div>Ndft : <i>int</i> Noverlap : <i>int</i> window : <i>str</i></div> <div>azim_PSDs : (N_azim,) <i>list of ‘MultiChannelPSDs’</i></div> <div>N_ch : <i>int</i> df : <i>float</i> fs : <i>int</i> freq : (Ndft//2+1,) <i>array</i></div> <div>broadband_SPL : (N_azim, N_ch) <i>array</i> overall_SPL : (N_azim, N_ch) <i>array</i></div> <div>peak_indices : (N_azim, N_ch, N_peaks) <i>array</i> peak_lims : (N_azim, N_ch, N_peaks, 2) <i>array</i> peaks_SPL : (N_azim, N_ch, N_peaks) <i>array</i></div> <div>tonal_SPL : (N_azim, N_ch,)- <i>array</i></div> <div>calc_azim_PSDs()</div> <div>calc_broadband_SPL() calc_overall_SPL()</div> <div>find_peaks() calc_peaks_SPL() calc_tonal_SPL()</div> <div>az_elev_to_polar()</div> <div>export_directivity()</div>

References on UML / Class Diagrams:

<https://www.visual-paradigm.com/guide/uml-unified-modeling-language/uml-class-diagram-tutorial/>

https://www.tutorialspoint.com/uml/uml_class_diagram.htm

salford_mic_arc Class Diagram	
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