IrcamDescriptor configuration parameters

Instructions

Click on any descriptor name to highlight the parameters that affect its computation. Click again to remove the highlighting.

Standard Descriptors	Dim	Var
SignalZeroCrossingRate	1	1
Chroma	12	1
AutoCorrelation	12	1
SpectralSkewness	1	6
SpectralKurtosis	1	6
SpectralSlope	1	6
SpectralDecrease	1	1
SpectralVariation	1	3
SpectralRolloff	1	1
PerceptualSpectralDeviation	1	3
Spread	1	1
Sharpness	1	1
RelativeSpecificLoudness	-1	1
PerceptualOddToEvenRatio	1	3
PerceptualTristimulus	3	3
SpectralCrest	-1	1
SpectralFlatness	-1	1
PerceptualSpectralSkewness	1	6
PerceptualSpectralKurtosis	1	6
PerceptualSpectralSlope	1	6
PerceptualSpectralDecrease	1	1
PerceptualSpectralVariation	1	3
PerceptualSpectralRolloff	1	1
MFCC	13	1
Inharmonicity	1	1
Noisiness	1	1
NoiseEnergy	1	1
HarmonicSpectralDeviation	1	3
HarmonicOddToEvenRatio	1	3
HarmonicTristimulus	3	3
HarmonicSpectralSkewness	1	6
HarmonicSpectralKurtosis	1	6
HarmonicSpectralSlope	1	6
HarmonicSpectralDecrease	1	1
HarmonicSpectralVariation	1	3
HarmonicSpectralRolloff	1	1

Energy Descriptors	Dim	Var
ShortTermFeature (EnergyEnvelope)	1	1
LogAttackTime (EnergyEnvelope)	-1	1
TemporalIncrease (EnergyEnvelope)	-1	1
TemporalCentroid (EnergyEnvelope)	-1	1
EffectiveDuration (EnergyEnvelope)	-1	1
AmplitudeModulationAmp (EnergyEnvelope)	-1	1
AmplitudeModulationFreq (EnergyEnvelope)	-1	1

	IrcamDescriptor Version 2.5.8 21/6/2011 ♦ Ircam 2011					
ID	Name	Section	DataType	Reqired/Default	Range	
Car	Description					
Ger 1	neral ResampleTo	Parameters	Integer	Required	11025-44100	
2	The internal sampling rate of NormalizeSignal	Parameters	Boolean	Opt - Default 1	0-1	
	Applies amplitude normalizat	·	GI :	Opt - Default	hanning blackman hammir	
3	WindowType The window type	Parameters	String	blackman	hanning2	
4	MaxFrequency	Parameters	Integer	Opt - Default ResampleTo/2	1-ResampleTo/2	
	Max frequency considered in FFTPadding	the analysis Parameters	Integer	Opt - Default 1	1 - N	
5	How many times the the first size		-	•	= ::	
6	SaveShortTermTMFeatures Enables the outputting of the		Boolean features	Required	0-1	
7	SubtractMean Enables the DC offset remov	Parameters al frame by frame	Integer	Opt - Default 1	0-1	
Sta	ndard modeling space	•				
8	WindowSize The length of the window siz	StandardDescriptors	Float	Required	1/ResampleTo - N	
	HopSize	StandardDescriptors	Float	Required	1/ResampleTo -	
9	The hop size in seconds	StandardDescriptors	Tiout	Required	WindowSize	
Ene	rgy modeling space					
10	WindowSize The length of the window siz	EnergyDescriptors e in seconds	Float	Required	1/ResampleTo - N	
11	HopSize	EnergyDescriptors	Float	Required	1/ResampleTo - WindowSize	
	The hop size in seconds					
Spe	ctral descriptors parameter			0 0 11 12	2 N : 4	
12	AutoCorrelationCoeffs Max lag to compute the auto	Parameters correlation. Becomes	Integer the number of	Opt - Default 12 of variations of the au	2-N+1 tocorrelation descriptor.	
	ReducedBands Parameters Integer Opt - Default 4 1-4 Number of frequency bands used for Spectral Flatness and Spectral Crest. These bands are defined as the first					
13	Number of frequency bands multiples of 1 kHz			•		
13		used for Spectral Flat StandardDescriptors	ness and Spe Float	ctral Crest. These bar Opt - Default 0.95		
	multiples of 1 kHz RolloffThreshold	standardDescriptors value of the loudness StandardDescriptors ber of harmonics or nut between multiple un	Float (or energy). Integer imber of mel	Opt - Default 0.95 Opt - Default 10 bands) to use in the o	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Not	
14 15	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared	StandardDescriptors value of the loudness StandardDescriptors ber of harmonics or nut between multiple unbands or harmonics.	Float (or energy). Integer imber of mel	Opt - Default 0.95 Opt - Default 10 bands) to use in the o	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Note	
14 15	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared between the number of mel	StandardDescriptors value of the loudness StandardDescriptors ber of harmonics or nut between multiple unbands or harmonics.	Float (or energy). Integer imber of mel	Opt - Default 0.95 Opt - Default 10 bands) to use in the o	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Note	
14 15 Per	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numbt that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCs	StandardDescriptors value of the loudness StandardDescriptors ber of harmonics or nut between multiple unbands or harmonics.	Float (or energy). Integer Imber of mel related descr	Opt - Default 0.95 Opt - Default 10 bands) to use in the ciptors, and its value n	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Note hust exceed the minimum	
14 15 Perc 16 17	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (number that this parameter is shared between the number of mel ceptual descriptors parameter perceptualBands Number of Mel Bands MFCCs Number of MFCCs	StandardDescriptors value of the loudness StandardDescriptors Ser of harmonics or nut bends or harmonics. ters Parameters Parameters	Float (or energy). Integer mber of mel related descr	Opt - Default 10 Opt - Default 10 bands) to use in the ciptors, and its value n Opt - Default 24	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Note nust exceed the minimum	
14 15 Perc 16 17	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (number that this parameter is shared between the number of mel ceptual descriptors parameter perceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors parameter Harmonics	StandardDescriptors value of the loudness StandardDescriptors value of the loudness StandardDescriptors or of harmonics or no detween multiple un bands or harmonics. ters Parameters Parameters Parameters	Float (or energy). Integer mber of mel related descr	Opt - Default 10 Opt - Default 10 bands) to use in the ciptors, and its value n Opt - Default 24	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Note nust exceed the minimum	
14 15 Pero 16 17 Har	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors paramete Harmonics Max number of harmonics for FOMaxAnalysisFreq	StandardDescriptors value of the loudness StandardDescriptors ser of harmonics or nu between multiple un bands or harmonics. ters Parameters Parameters Parameters Parameters Farameters Parameters Control of the bands or harmonics or nu bands or harmonics.	Float (or energy). Integer mber of mel related descr	Opt - Default 10 Default 11 Default 24 Default 13	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Note nust exceed the minimum 10-24 1-N	
14 15 Perc 16 17 Har 18	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (number that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors parameted Harmonics Max number of harmonics for	StandardDescriptors value of the loudness StandardDescriptors value of the loudness StandardDescriptors ver of harmonics or not between multiple un bands or harmonics. ters Parameters Parameters Parameters Parameters StandardDescriptors value of the loudness Parameters Parameters Parameters Parameters Comparison Compar	Float (or energy). Integer Integer Integer Integer Integer	Opt - Default 0.95 Opt - Default 10 bands) to use in the ciptors, and its value n Opt - Default 24 Opt - Default 13	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Notinust exceed the minimum 10-24 1-N	
14 15 Pero 16 17 Har 18 19	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors paramete Harmonics Max number of harmonics fo FOMaxAnalysisFreq Cutoff frequency for F0 estin FOMinFrequency Minimum frequency for F0 es	StandardDescriptors value of the loudness or nu between multiple un bands or harmonics. ters Parameters Parameters Parameters Parameters r harmonic analysis StandardDescriptors nation StandardDescriptors stimation StandardDescriptors	Float (or energy). Integer Integer Integer Integer Integer Integer Integer Integer Integer	Opt - Default 10 Opt - Default 10 bands) to use in the ciptors, and its value n Opt - Default 24 Opt - Default 13 Opt - Default 20 Opt - Default 3000	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Notinust exceed the minimum 10-24 1-N 1-ResampleTo/2	
14 15 Perc 16 17 Har 18	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCS Number of MFCCs monic descriptors paramete Harmonics Max number of harmonics fo FOMaxAnalysisFreq Cutoff frequency for F0 estin FOMinFrequency Minimum frequency for F0 es FOMaxFrequency Maximum frequency for F0 es FOAmpThreshold	StandardDescriptors value of the loudness StandardDescriptors value of the loudness StandardDescriptors of harmonics or not between multiple unbands or harmonics. ters Parameters Parameters Parameters Parameters Parameters Farameters Carameters Parameters Parameters Parameters StandardDescriptors stimation StandardDescriptors stimation StandardDescriptors stimation StandardDescriptors stimation StandardDescriptors	Float (or energy). Integer	Opt - Default 10 Opt - Default 10 bands) to use in the ciptors, and its value n Opt - Default 24 Opt - Default 13 Opt - Default 20 Opt - Default 20 Opt - Default 200	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Notinust exceed the minimum 10-24 1-N 1-ResampleTo/2 1-ResampleTo/2 FOMinFrequency-	
14 15 Perc 16 17 Har 18 19 20	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors paramete Harmonics Max number of harmonics fo FOMaxAnalysisFreq Cutoff frequency for F0 estin FOMinFrequency Minimum frequency for F0 es FOMaxFrequency Maximum frequency for F0 es FOAmpThreshold Thresholding of the spectrum FOAmplitudeModulation	StandardDescriptors value of the loudness StandardDescriptors or not between multiple unbands or harmonics. ters Parameters Parameters Parameters Parameters Parameters Parameters StandardDescriptors nation StandardDescriptors stimation StandardDescriptors stimation StandardDescriptors on in FO detection StandardDescriptors on in FO detection StandardDescriptors	Float (or energy). Integer	Opt - Default 10 Opt - Default 10 bands) to use in the ciptors, and its value n Opt - Default 24 Opt - Default 13 Opt - Default 20 Opt - Default 20 Opt - Default 200 Opt - Default 200	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Notinust exceed the minimum 10-24 1-N 1-ResampleTo/2 1-ResampleTo/2 FOMinFrequency- ResampleTo/2	
14 15 Perc 16 17 Har 18 19 20 21 22 23	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (number that this parameter is shared between the number of mel ceptual descriptors parameter perceptual Bands Number of Mel Bands MFCCs Number of MFCCs monic descriptors parameter Harmonics Max number of harmonics for FOMAXAnalysisFreq Cutoff frequency for FO estin FOMinFrequency Minimum frequency for FO estin FOMAXFrequency Maximum frequency for FOMAXFrequen	StandardDescriptors value of the loudness StandardDescriptors or not between multiple unbands or harmonics. ters Parameters Parameters Parameters Parameters Parameters r harmonic analysis StandardDescriptors stimation StandardDescriptors on in F0 detection StandardDescriptors the F0 modulation descriptors where F0 modulation descriptors standardDescriptors the F0 modulation descriptors standardDescriptors on the F0 modulation descriptors standardDescriptors of the F0 modulation descriptors standardDescriptors standardDescriptors standardDescriptors of the F0 modulation descriptors of the F0 modulation d	Float (or energy). Integer	Opt - Default 10 Opt - Default 10 bands) to use in the cliptors, and its value n Opt - Default 24 Opt - Default 13 Opt - Default 20 Opt - Default 20 Opt - Default 200	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Not nust exceed the minimum 10-24 1-N 1-ResampleTo/2 1-ResampleTo/2 FOMinFrequency- ResampleTo/2 1-N	
14 15 Pero 16 17 Har 18 19 20 21 22 23 Ene	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (number that this parameter is shared between the number of mel ceptual descriptors parameter perceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors parameter Harmonics Max number of harmonics for FOMaxAnalysisFreq Cutoff frequency for FO estin FOMinFrequency Minimum frequency for FO estin FOMaxFrequency Threshold in the spectrum FOAmplitudeModulation Enables the computation of the regy descriptors parameters DecreaseThreshold	StandardDescriptors value of the loudness StandardDescriptors ber of harmonics or not between multiple unbands or harmonics. ters Parameters Parameters Parameters Parameters Parameters Parameters Parameters Parameters Comparison Comparison StandardDescriptors stimation StandardDescriptors	Float	Opt - Default 10 Opt - Default 10 bands) to use in the cliptors, and its value n Opt - Default 24 Opt - Default 13 Opt - Default 20 Opt - Default 20 Opt - Default 200	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Not nust exceed the minimum 10-24 1-N 1-ResampleTo/2 1-ResampleTo/2 FOMinFrequency- ResampleTo/2 1-N	
14 15 Perc 16 17 Har 18 19 20 21 22 23	multiples of 1 kHz RolloffThreshold Percentage of the maximum DeviationStopBand Max number of bands (numb that this parameter is shared between the number of mel ceptual descriptors parame PerceptualBands Number of Mel Bands MFCCs Number of MFCCs monic descriptors paramete Harmonics Max number of harmonics for FOMaxAnalysisFreq Cutoff frequency for F0 estin FOMinFrequency Minimum frequency for F0 es FOMaxFrequency Maximum frequency for F0 es FOAmpThreshold Thresholding of the spectrun FOAmplitudeModulation Enables the computation of the rgy descriptors parameters DecreaseThreshold Percentage of the maximum NoiseThreshold	StandardDescriptors value of the loudness StandardDescriptors value of the loudness StandardDescriptors of harmonics or not between multiple unbands or harmonics. ters Parameters Parameters Parameters Parameters Parameters Parameters StandardDescriptors nation StandardDescriptors stimation StandardDescriptors stimation StandardDescriptors on in F0 detection StandardDescriptors of the loudness value of the loudness EnergyDescriptors	Float Integer	Opt - Default 10 Opt - Default 10 bands) to use in the cliptors, and its value n Opt - Default 24 Opt - Default 13 Opt - Default 20 Opt - Default 20 Opt - Default 200	nds are defined as the first 0.0-1.0 1-min(harmonics, MFCC) deviation computation. Not nust exceed the minimum 10-24 1-N 1-ResampleTo/2 1-ResampleTo/2 FOMinFrequency- ResampleTo/2 1-N 0-1	
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1 of 2 6/20/13 12:57 PM

27	ChromaFreqMaxHz	StandardDescriptors	Float	Opt - Default 1500	ChromaFreqMinHz- ResampleTo/2	
	The maximum pitch for chro	ma computation				
28	ChromaResolution The resolution of chroma in	StandardDescriptors semitones	Float	Opt - Default 1	0.001-12	
29	ChromaNormmax Enables normalization of the	StandardDescriptors chroma results	Boolean	Opt - Default 1	0-1	
30	ChromaAmFftNormmax Turn on or off spectrum nor	StandardDescriptors malization in Chroma	Boolean	Opt - Default 1	0-1	
31	ChromaAmplEnerLog Sets the filter scale of Chror	StandardDescriptors na	String	Opt - Default ener	ampl ener logTCN	
32	ChromaAmFftThreshold Thresholds the fft in chroma	StandardDescriptors detection	Float	Opt - Default 0.001	0-1	
33	ChromaPeakPickingLagHz Sets the tollerance for peak	StandardDescriptors detection respect to the		Opt - Default 0.0 cale in Hertz	0.0-ChromaFreqMaxHz	
34	ChromaSfmThreshold FilterBank threshold	StandardDescriptors		Opt - Default 0.0	0.0-1.0	
35	ChromaSfmBandHz	StandardDescriptors	Integer	Opt - Default 100 500 1000 2000 4000	0-ResampleTo/2	
	FilterBank bands					
Ten	nporal modeling parameter	rs .				
36	TextureWindowsFrames (StandardDescriptors) The r			Opt - Default -1 o compute a texture	1-N window frame1 disables	
37	TextureWindoweHonFrames StandardDescriptors Integer Ont - Default -1 1-N					
38	TextureWindowsFrames (EnergyDescriptors) The number texture windows computation	EnergyDescriptors mber of short time fra	Integer	Opt - Default -1	1-N	
39	TextureWindowsHopFrames (EnergyDescriptors) Step size	EnergyDescriptors	Integer	Opt - Default -1	1-N	
40	MedianFilterOrder If any descriptor has median	StandardDescriptors	Integer	Opt - Default 5	1-N (odd)	
	MedianFilterNormalize	StandardDescriptors		Opt - Default 1	0-1	
41	MedianFilterNormalize StandardDescriptors Boolean Opt - Derault 1 0-1 Normalizes the output of the median filter over the maximum value in the filter window, to have an output always included between 0 and 1.					
42	TemporalFilterWindowSize Expressed in seconds, it's th	StandardDescriptors		Opt - Default 0 dow.	0-N	
43	TemporalFilterHopSize Expressed in seconds, it's th	StandardDescriptors ne hop size of the Tem	-	Opt - Default 0	0-TemporalFilterWindowSize	
44	TemporalFilterBank	StandardDescriptors	-	Opt - Default 5 10 15 20	0-N	
	Sets the FFT bins that will b		e remporal Fi	iter.		
Leg	acy / low level / experime	ntal parameters				
46	IOBufferSize The buffer used to read the	Parameters input file from disk.	Integer	Opt - Default 4096	256-8196	
47	GroupMatrices Reduces the dimension of the same instant and belonging		Boolean single frame	Opt - Default 1 for all the descriptors	0-1 matrices computed in the	
48	OutputFormat The output format, normally	Parameters SDIF	String	Opt - Default sdif	sdif raw sdifdata	

2 of 2 6/20/13 12:57 PM