APE Perceptual Evaluation - Bug #1492
Loudness script issues

2015-12-09 04:02 PM - Brecht De Man

Status:	New		**Start date:**	2015-12-09
Priority:	Normal		**Due date:**	
Assignee:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:				

Description

The loudness calculation seems off, partly due this error:

maxI = floor(length(vector)/olapSize - winSize/olapSize + 1);

should be

maxI = floor(length(vector)/(winSize-olapSize) - winSize/(winSize-olapSize) + 1);

(The ITU_R BS.1770 standard says the overlap between each gating block must be 75% of block duration. Consider a block length of 100 samples (say). Overlap between consecutive blocks must be 75 samples. So if the total duration of signal is 150 samples, then there will be 3 blocks formed: Samples 1-100, 26-125, and 51-150.)

And probably similar with the 'blockEnergy' calculation.

But also, the filter coefficients may be off, and should change with sample rate.