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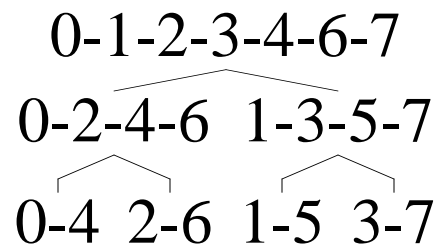


Figure 6.1 Decimation in time.

N	A	B	C	C	B	A	bitr(N)
0	0	0	0	0	0	0	0
1	0	0	1	1	0	0	4
2	0	1	0	0	1	0	2
3	0	1	1	1	1	0	6
4	1	0	0	0	0	1	1
5	1	0	1	1	0	1	5
6	1	1	0	0	1	1	3
7	1	1	1	1	1	1	7

Figure 6.2. An Example of how to decimate by bit reversal

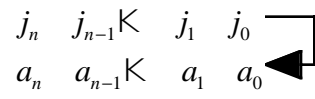


Figure 6.3. The j and a registers are linked with the + operator.

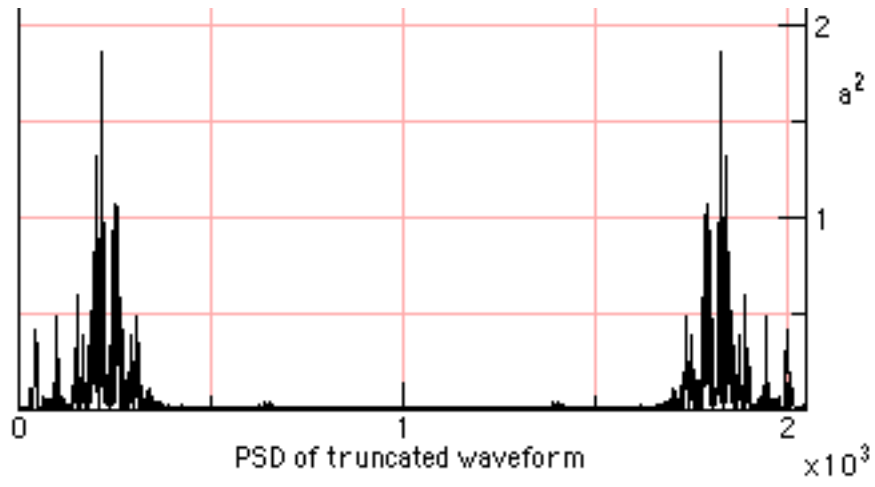


Figure 6.4. The psd of a 2048 Sampled Waveform

[1] FFT
[2] IFFT
[3] DFT
[4] IDFT
[5] Graph PSD, R and I

Figure 6.5. The Transform Fragment of the AudioFrame

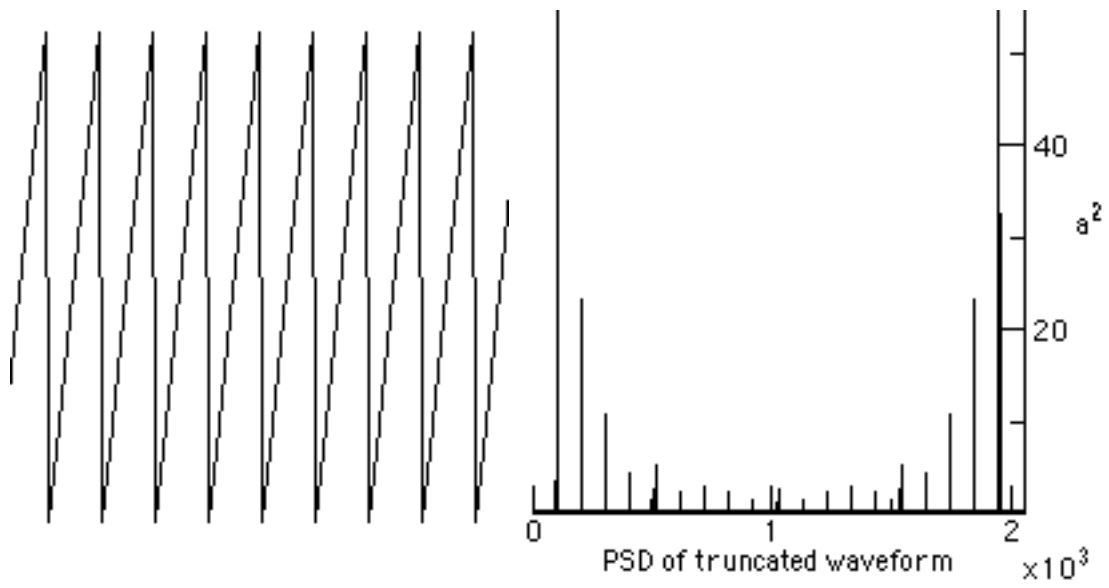


Figure 6.6. SawWave and Spectral output from the graphPSD method.

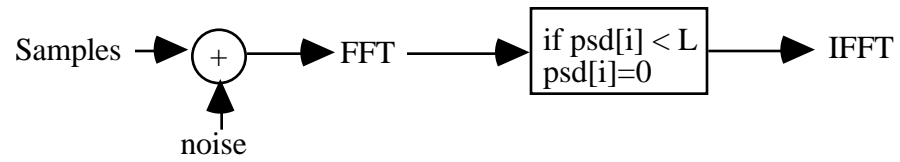


Figure 6.7. The Noise Filter

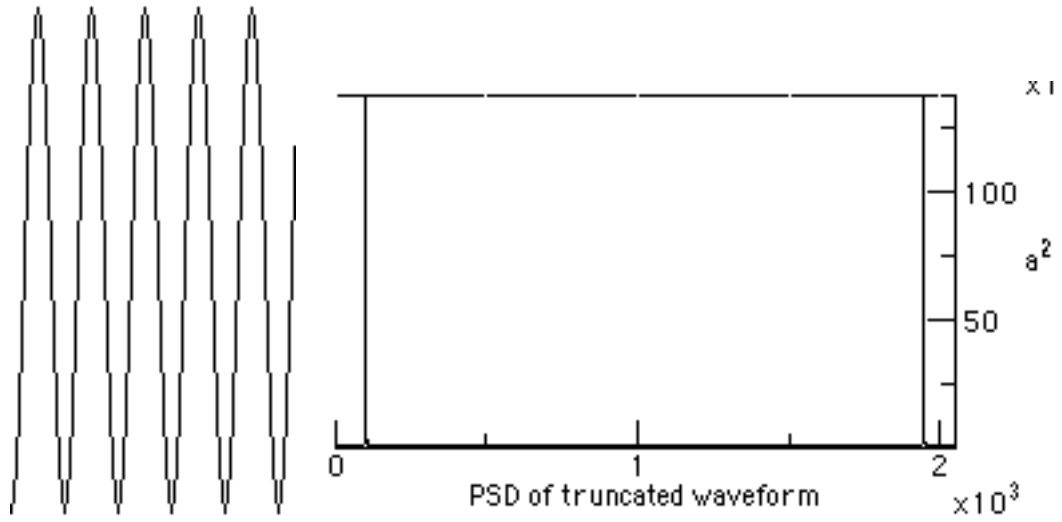


Figure 6.8. Graph of the Sine Tone at 400 Hz with psd

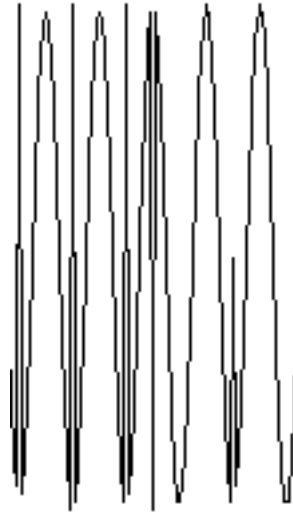


Figure 6.9. Sinewave after the addition of noise

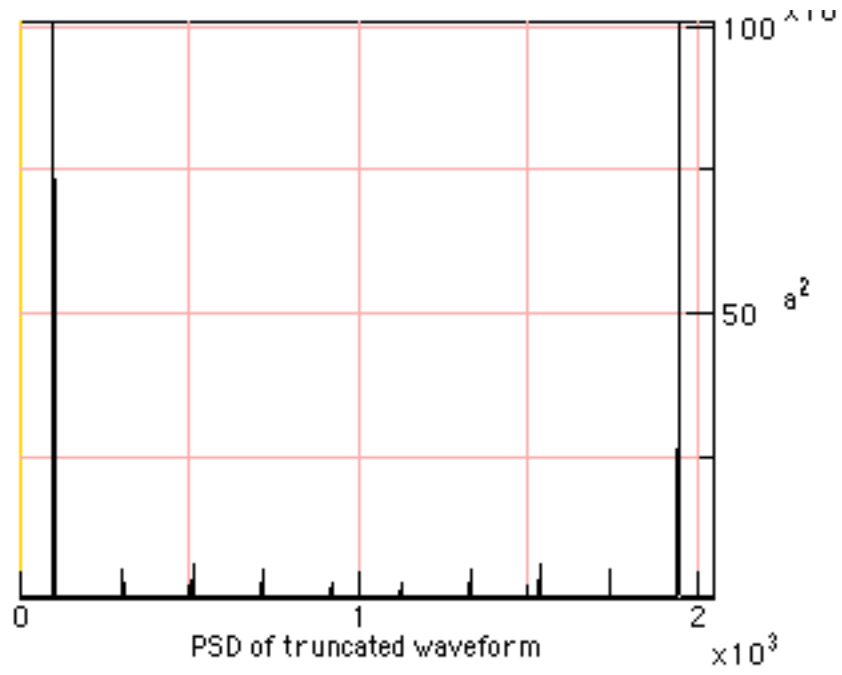


Figure 6.10. The psd of the Sinewave plus Noise

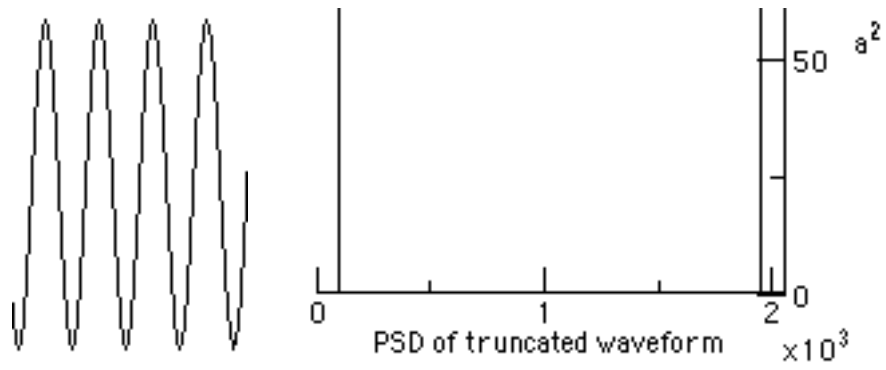


Figure 6.11. The Reconstructed Waveform and its psd

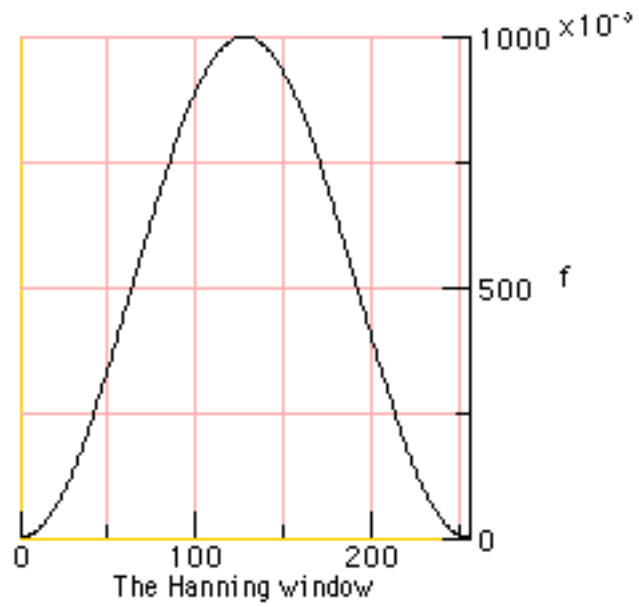


Figure 6.12 The hanning window

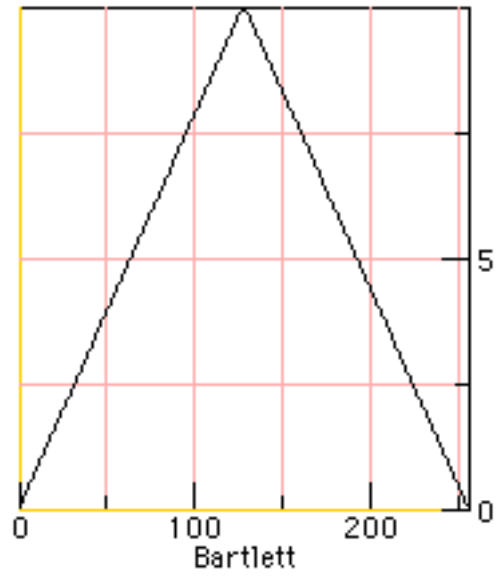


Figure 6.13. The Bartlett Window

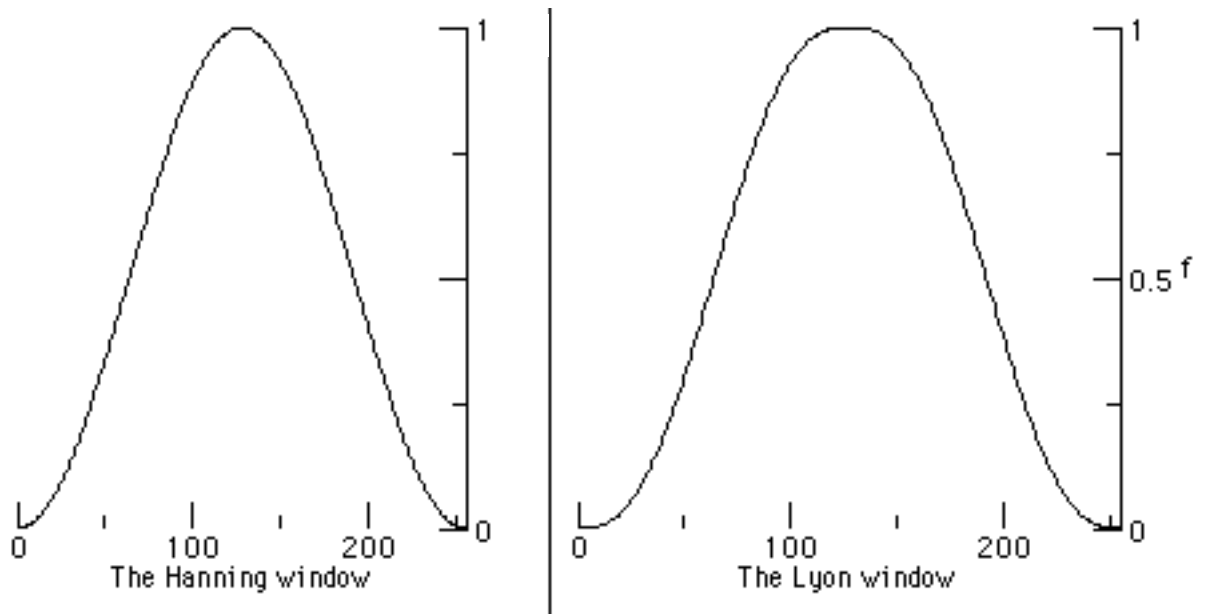


Figure 6.14. The Lyon and hanning windows compared

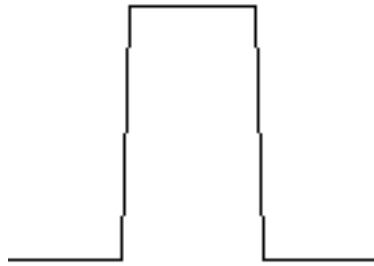


Figure 6.15. A passband shown spectral harmonics to admit

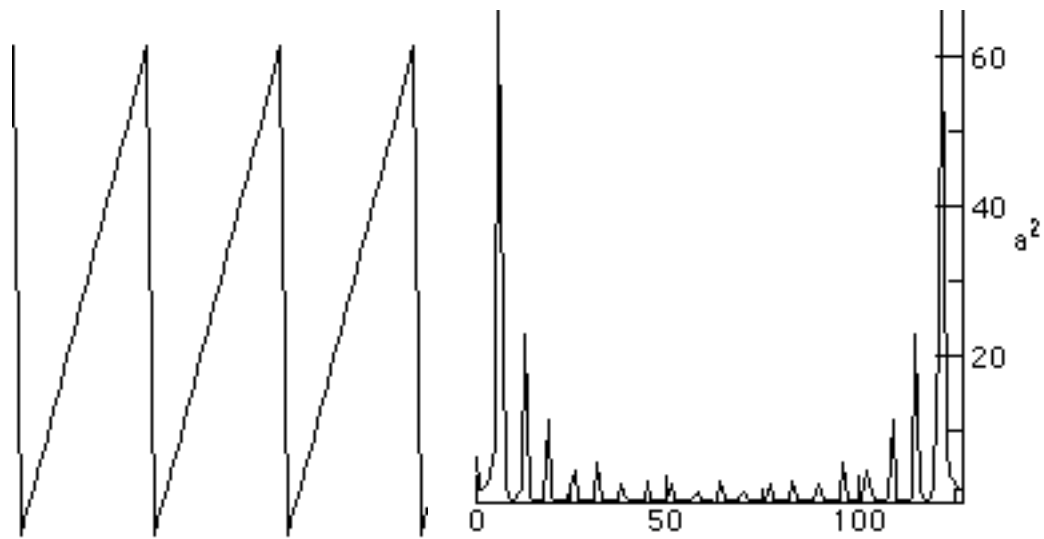


Figure 6.16. The Sawwave and its psd

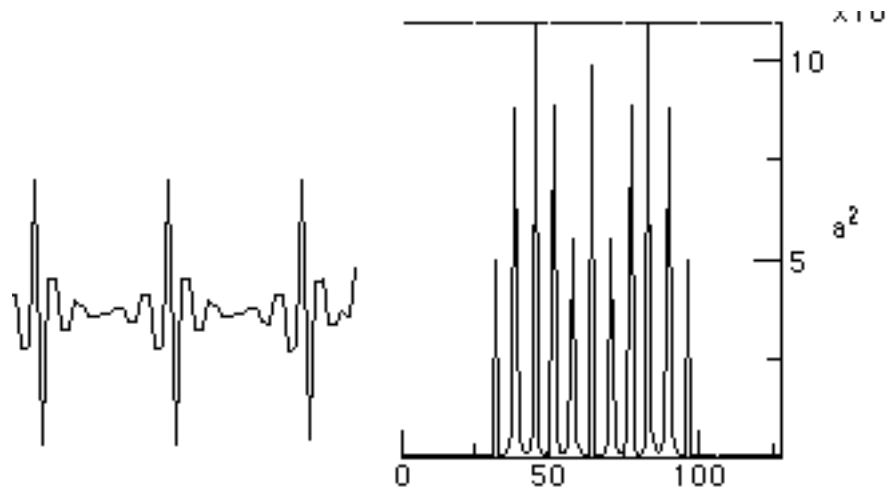


Figure 6.17. The Hi-pass filtered Sawtooth and its psd

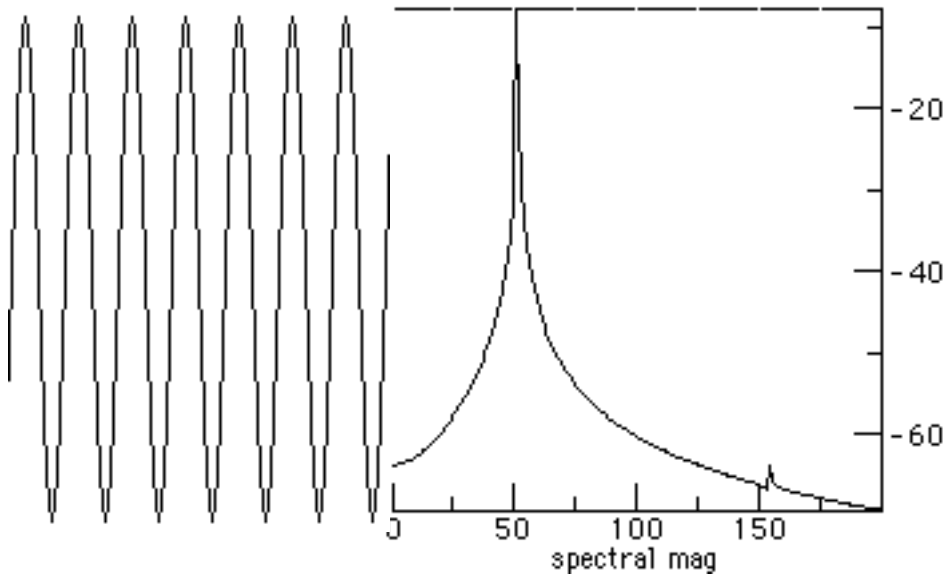


Figure 6.18. A Rectangular window and spectral dB log.

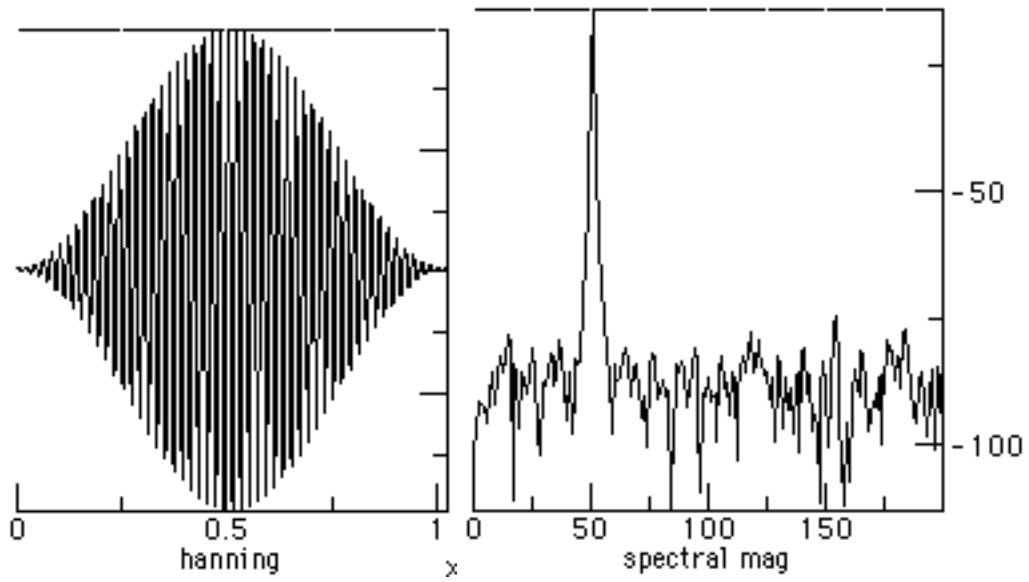


Figure 6.19. The hanning windowed data with the FFT result.

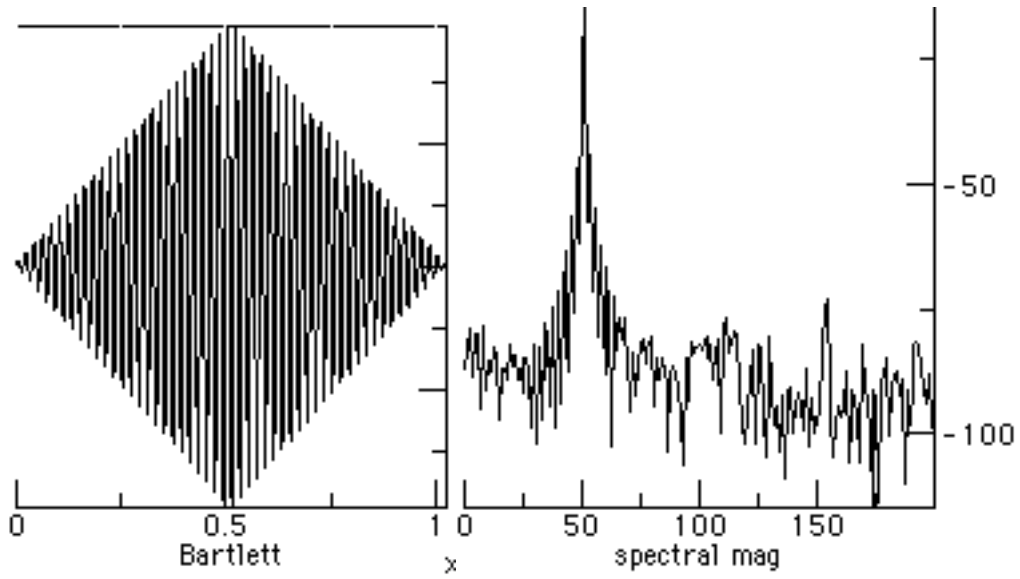


Figure 6.20. The Bartlett windowed data and the psd

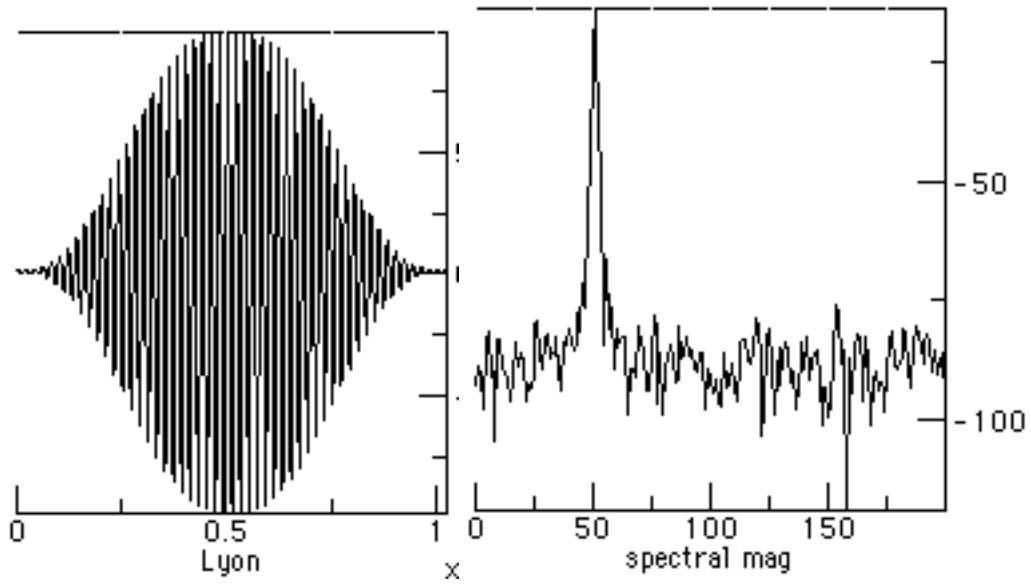


Figure 6.21. The Lyon window and psd

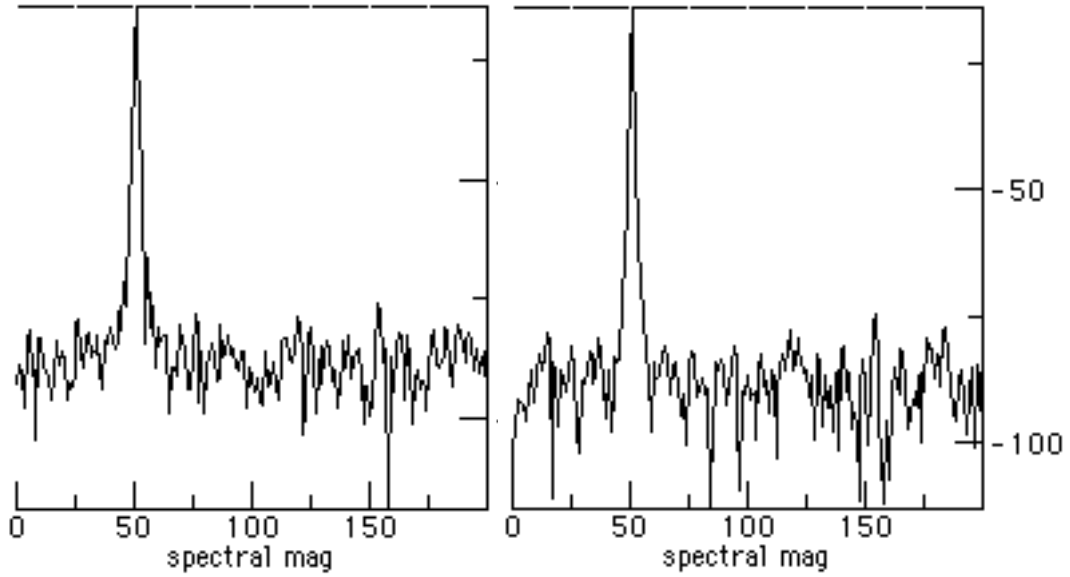


Figure 6.22. Spectra of Lyon vs. hanning windows

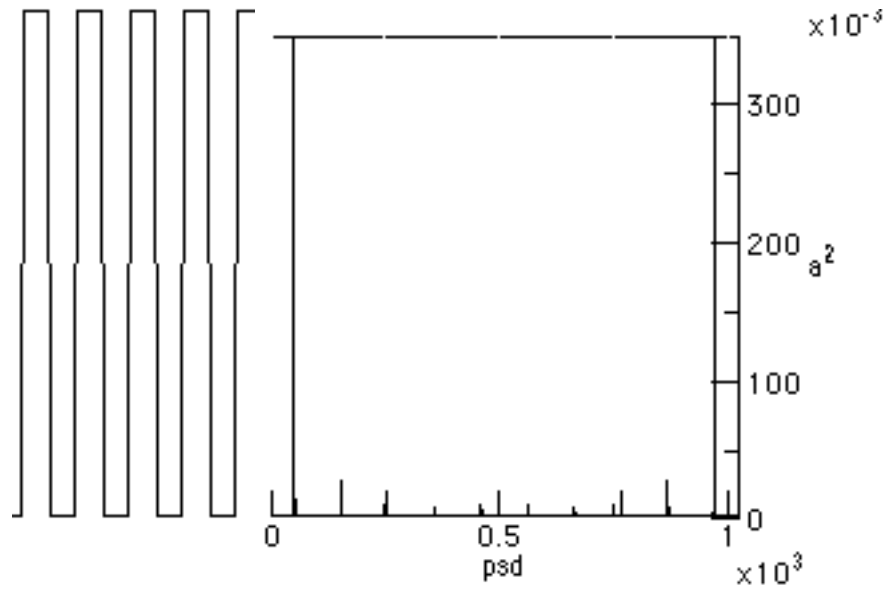


Figure 6.23. The Squarewave and its psd

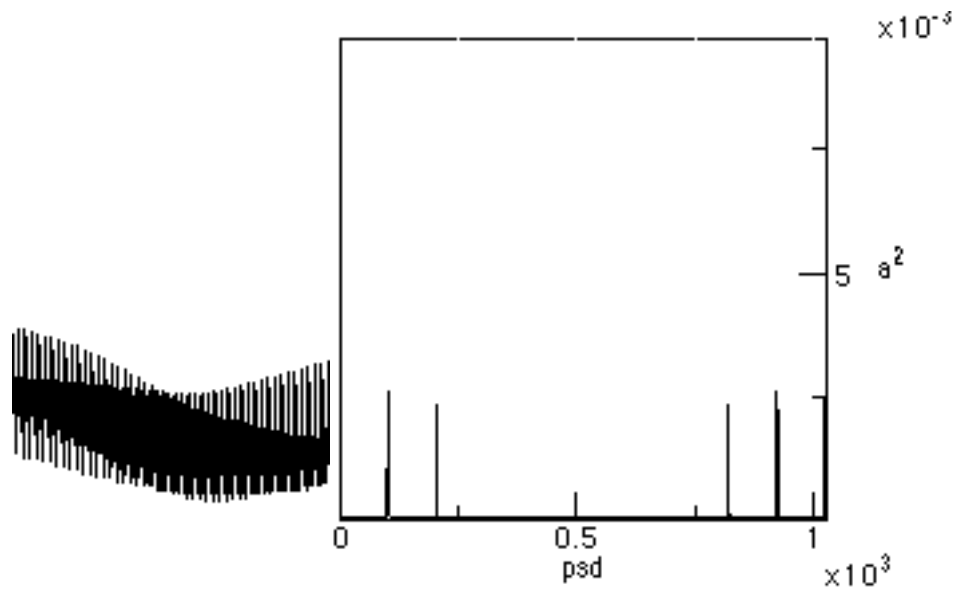


Figure 6.24. The pitch-shifted square wave and its psd.

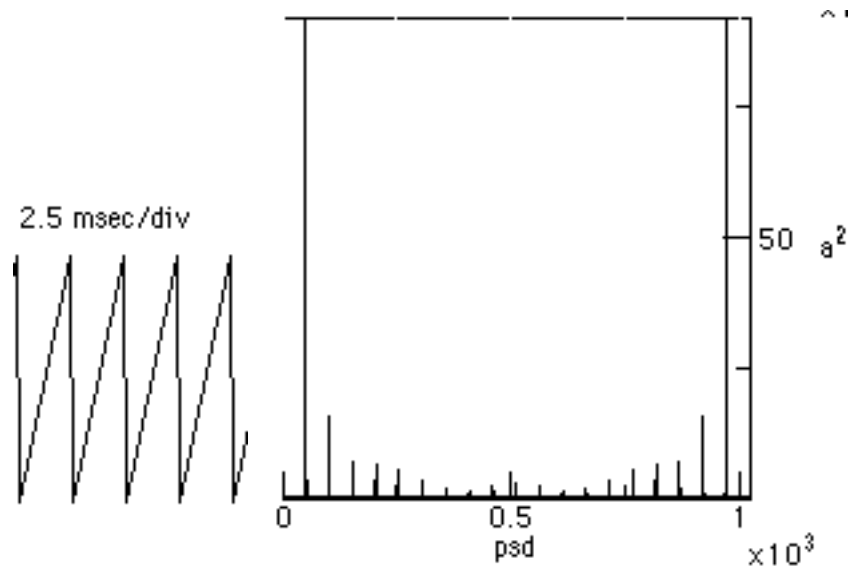


Figure 6.25. The sawwave and psd before the subsampling

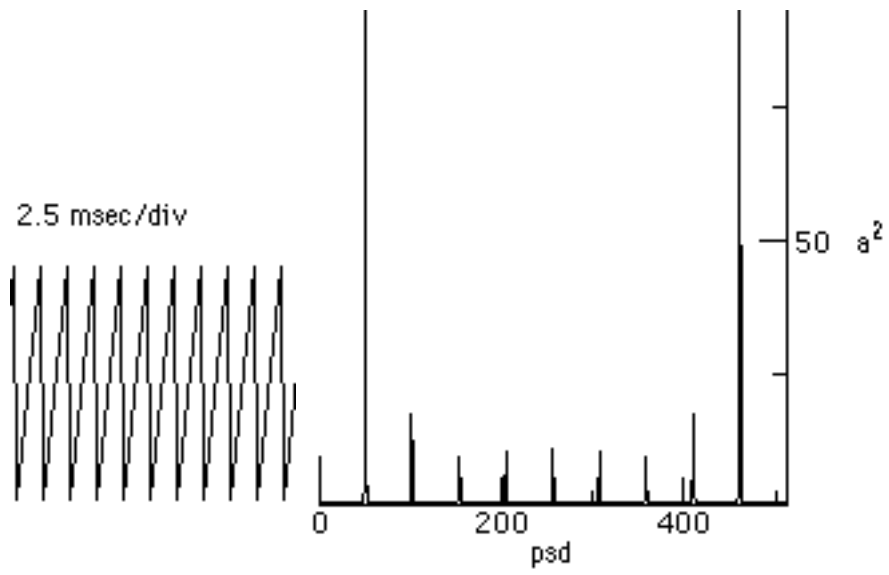


Figure 6.26. The sawwave and psd after subsampling

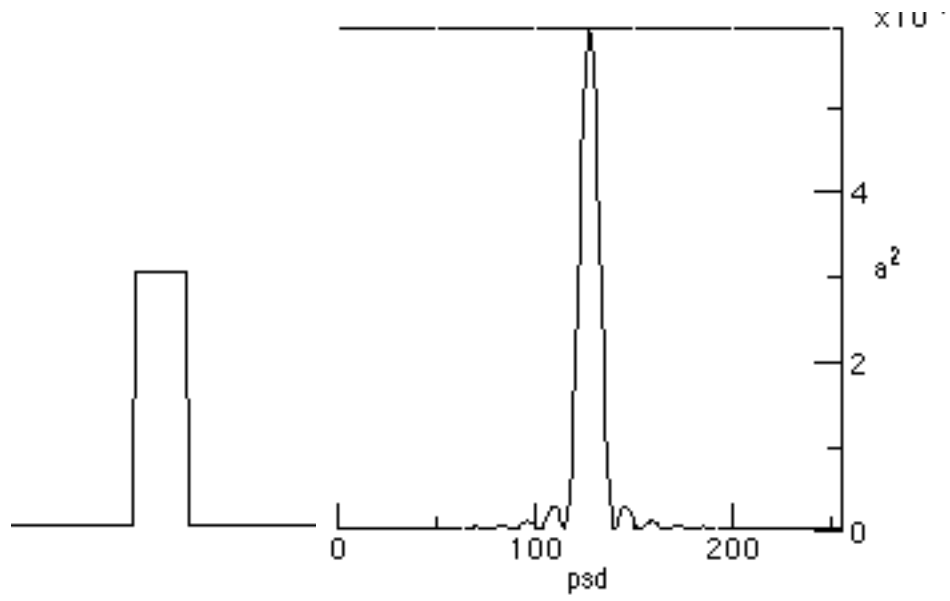


Figure 6.27 A Pulse with A Centered psd.

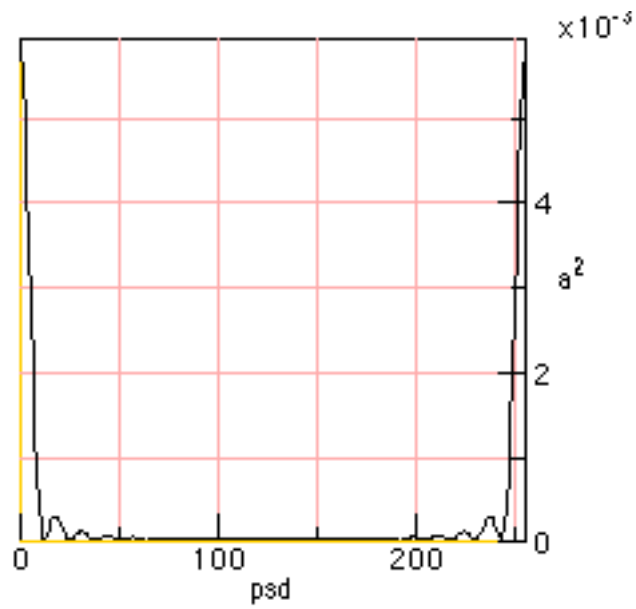


Figure 6.28. An Uncentered psd