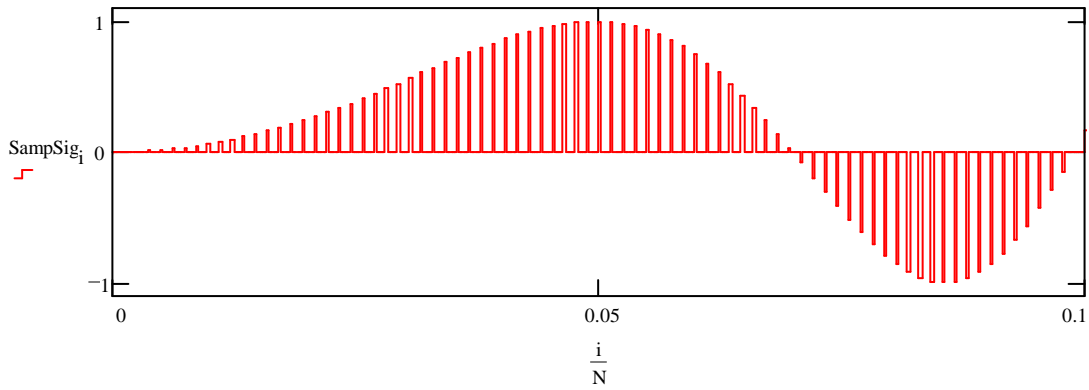


Digitization in time

Alan Bloom 10/29/2006

Swept sine wave, $f = 0 - F_s / 20$: $N := 4096$ $i := 0..N - 1$ $f_i := \frac{i}{40 \cdot N}$ $Signal_i := \sin(2 \cdot \pi \cdot f_i \cdot i)$

Resample at 1/5 the rate: $SampSig_i := 0$ $k := 0.. \frac{N}{5}$ $SampSig_{5 \cdot k} := Signal_{5 \cdot k}$



$SampSpectrum := FFT(SampSig)$ $j := 0.. \frac{N}{2}$ $SSdB_j := 20 \cdot \log\left(\frac{|SampSpectrum_j|}{|SampSpectrum_{50}|}\right)$

