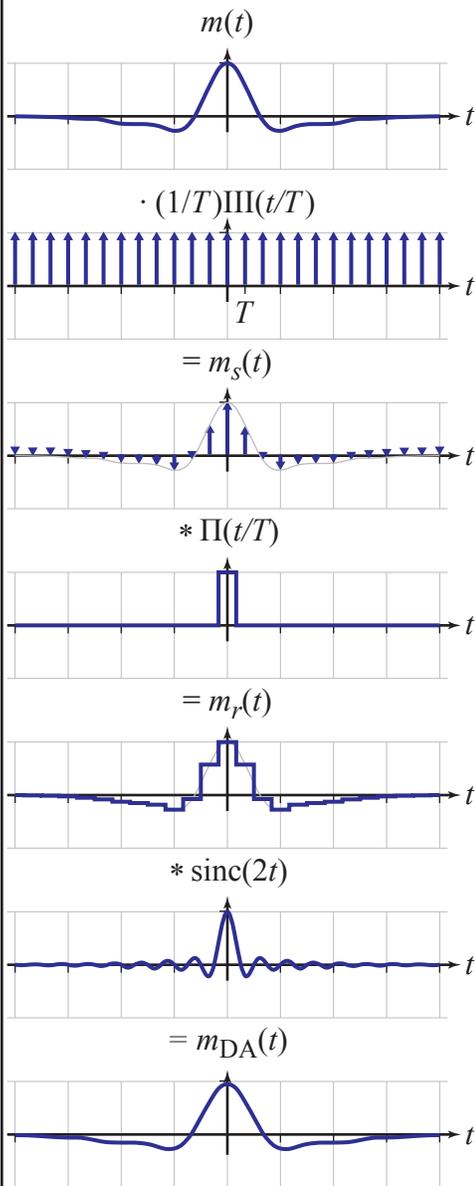


DSP ROSETTA STONE METHOD
A/D D/A CONVERSION



Time-domain waveform =
 $(4/3)\text{sinc}^2(t)$
 $-(1/3)\text{sinc}^2(t/4)$

Sampling rate 3 per time unit avoids aliasing

sampled waveform

Convolve with rect function to create stair-step waveform

stair-step waveform from D/A converter

smooth with ideal low-pass filter

Waveform slightly smoothed

Band-limited signal =
 $(4/3)\Lambda(t)$
 $-(4/3)\Lambda(4t)$

Spectrum copies will be at $f = 3n$

Sampled spectrum

Multiply by spectrum of rect function

Baseband spectrum a bit distorted

Ideal low-pass filter

Higher freq's slightly attenuated

