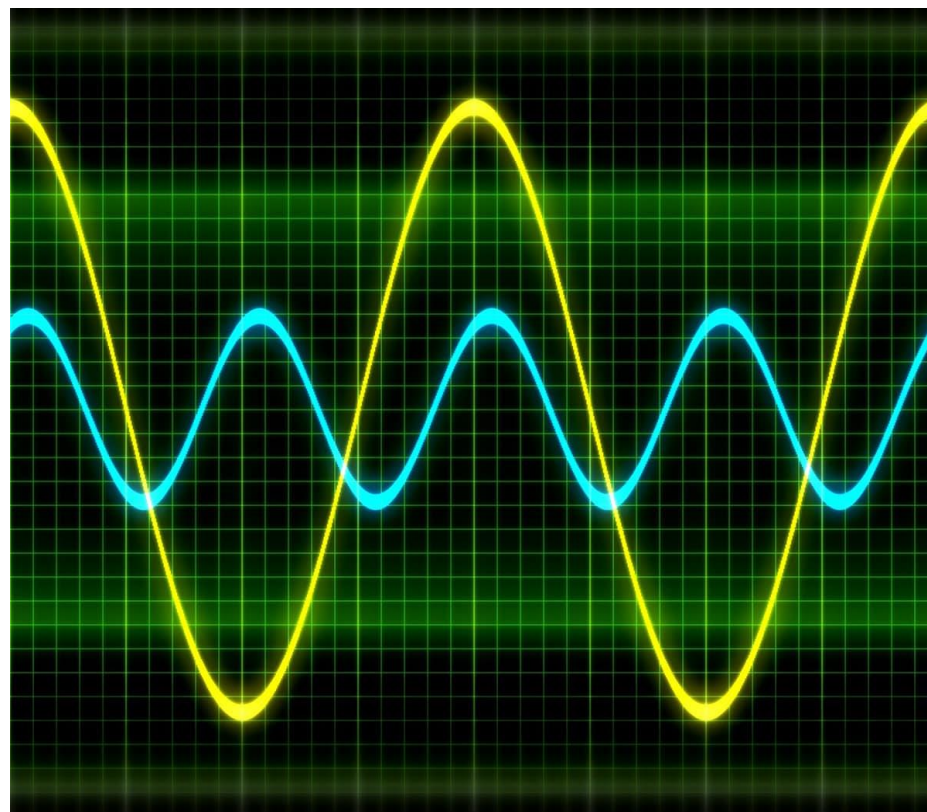




## Fundamentals of **Industrial Measurement** Technology

# Waveform Excitation



ProDSP Post Series Nr.31.



# Waveform excitation

In many test tasks, a static DC level is not sufficient. In such cases, **time-dependent waveform** generation is required.





# Periodic signals

**Typically** generated waveforms include:

- Square wave
- Sine wave
- Triangle wave

These are usually produced using a **function generator**.





# Periodic signals

When selecting a generator, **not only** the frequency and amplitude range matter, but also:

- Adjustment resolution
- Fine step sizing of parameters





# Aperiodic signals

**Non-repeating waveforms.** The use of a PC-based DAC card is justified.

Critical parameters in this case include:

- Sampling frequency
- Bandwidth
- Maximum signal slew rate





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