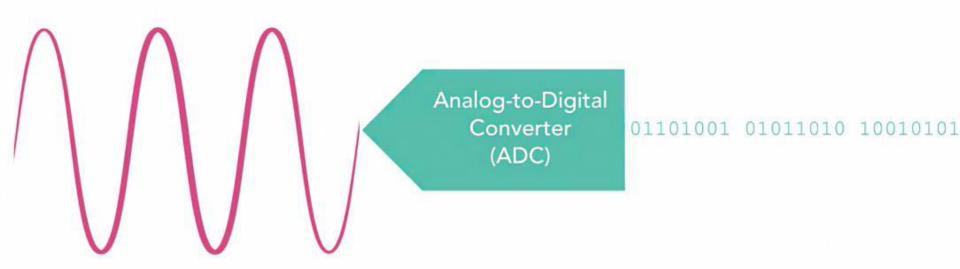
Generisanje signala

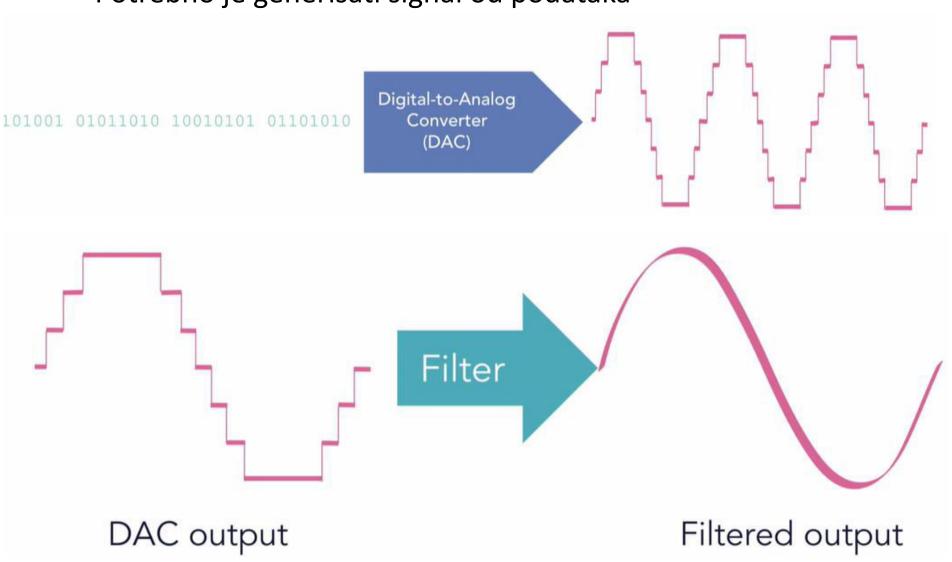
Osnove

• Do sada...



Osnove

Potrebno je generisati signal od podataka

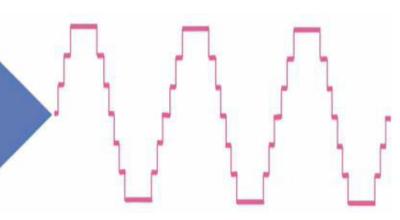


Tajmiranje

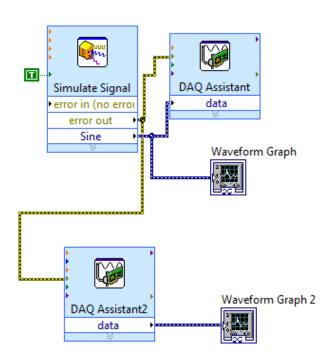
- Softversko
 - Upisuje vrednosti jednu po jednu
 - Uglavnom za DC signale
- Hardversko
 - Podaci se upisuju u izlazni bafer
 - Konačan broj odbiraka
 - Kontinuirano generisanje signala

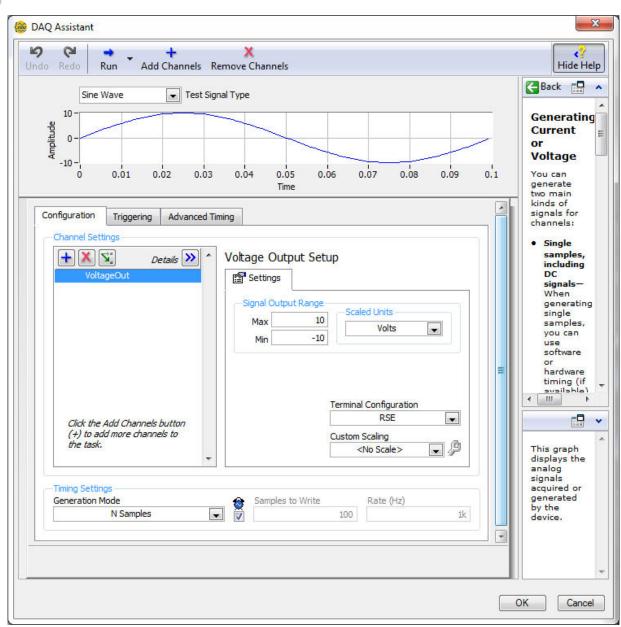
Output buffer

Digital-to-Analog Converter (DAC)

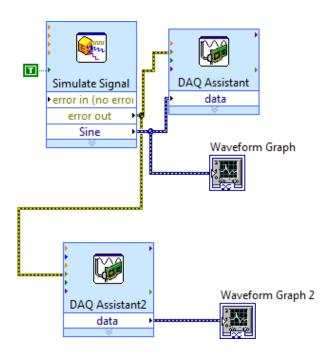


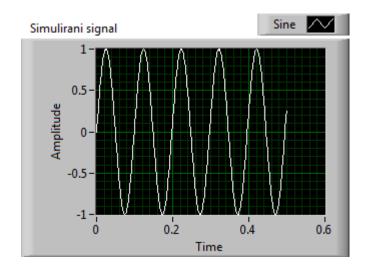
DAQ Assistant

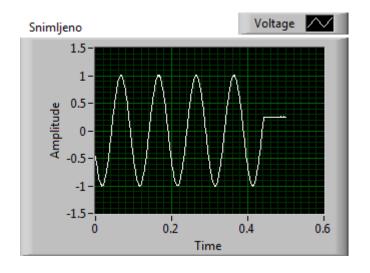




DAQ Assistant

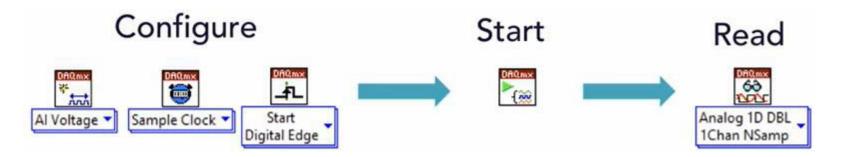




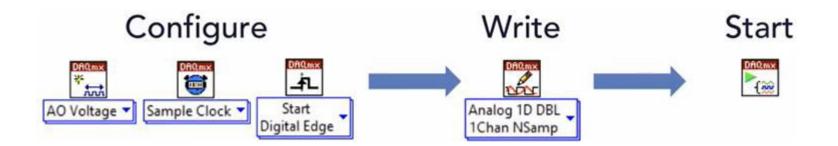


DAQmx API

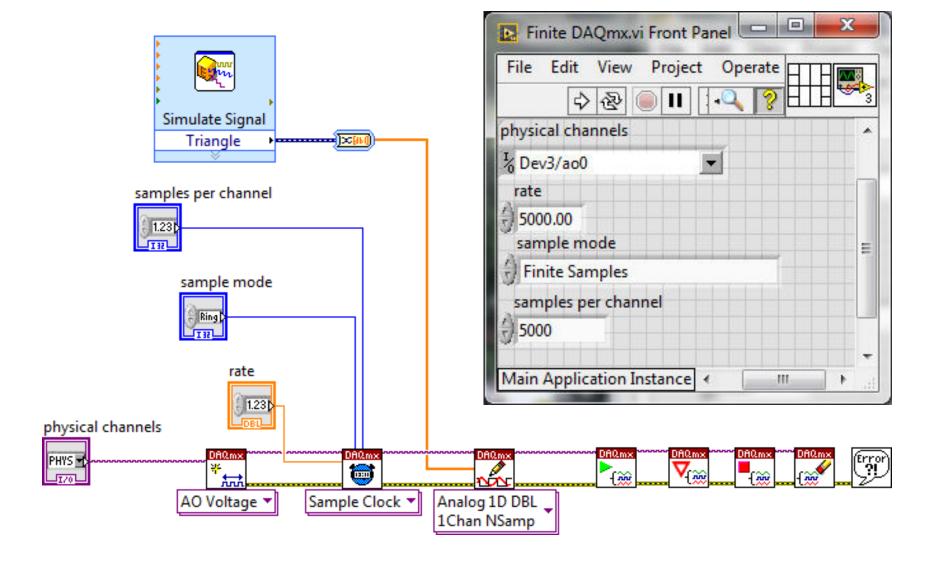
Ulazi



• Izlazi



DAQmx API

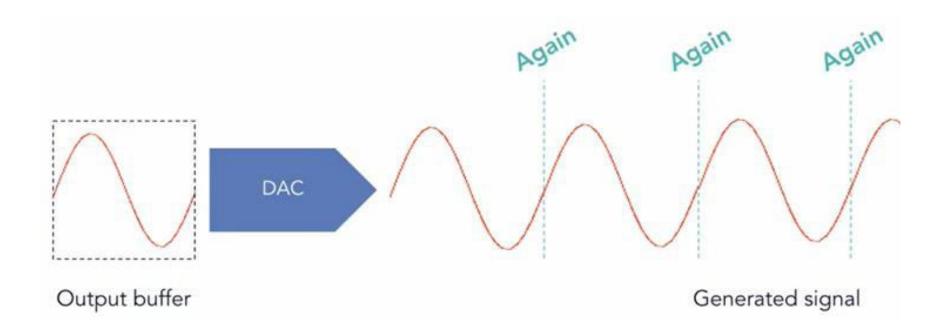


Konačan broj odbiraka – jednostavnije



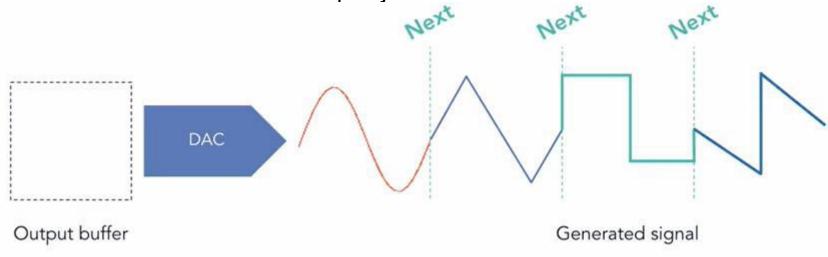
- Kontinuirano komplikovanije
- DAC mora uvek imati sledeći odbirak koji treba da generiše

- Regeneracija
 - Sadržaj ulaznog bafera se generiše sekvencijalno



Prihvatljivo za periodične signale

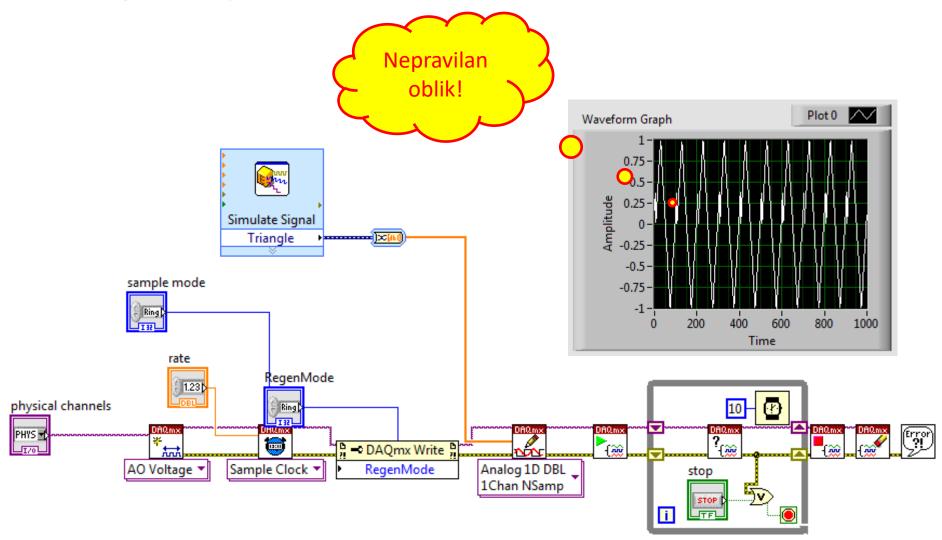
- Bez regeneracije
 - Podaci se kontinuirano upisuju u izlazni bafer



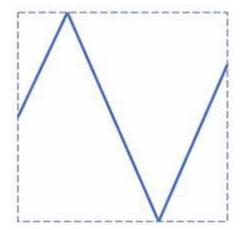
- Mora se obezbediti neprekidan dotok podataka u bafer
- Underflow error

Regeneracija Continuous DAQmx.vi Front Pa., File Edit View Project Operate physical channels Dev3/ao0 rate 5000.00 sample mode Continuous Samples RegenMode Simulate Signal Allow Regeneration Triangle)×[41 sample mode STOP Ring Main Application Instance rate RegenMode 1.23 physical channels Ring PHYS 📆 **?** {‱ **-**(200 🖫 ➡ DAQmx Write 🖫 J170L Analog 1D DBL AO Voltage > Sample Clock RegenMode stop 1Chan NSamp

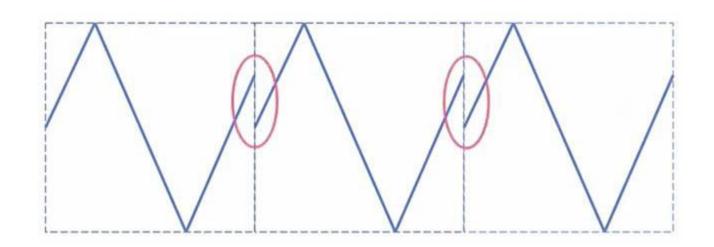
Regeneracija



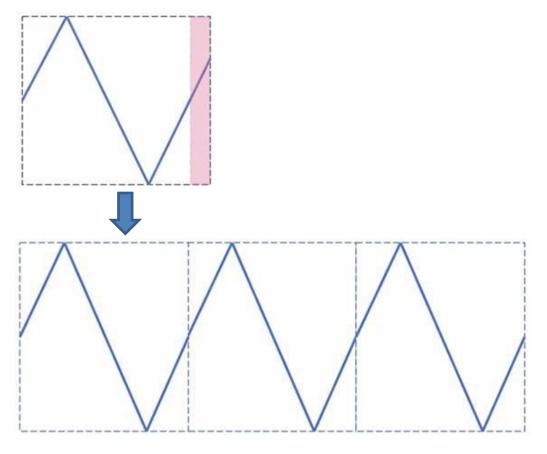
- U čemu je problem?
 - Simulirani signal frekvencije 11 Hz
 - Upisuje se 500 odbiraka brzinom od 5 kHz
 - Nije ceo period!



Generisani signal:

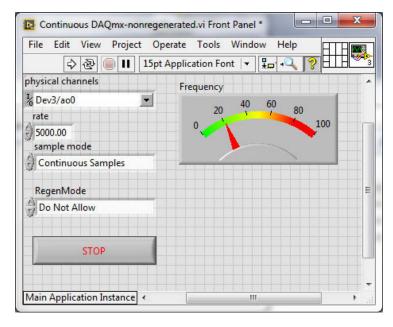


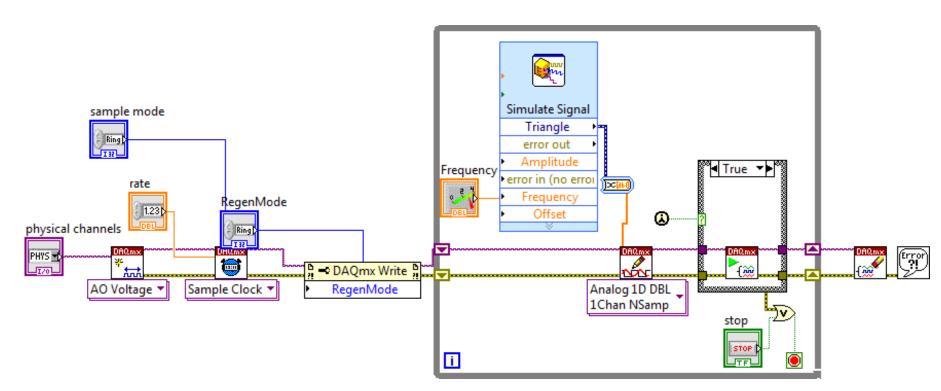
Rešenje – izbaciti višak odbiraka i napraviti periodičan signal!



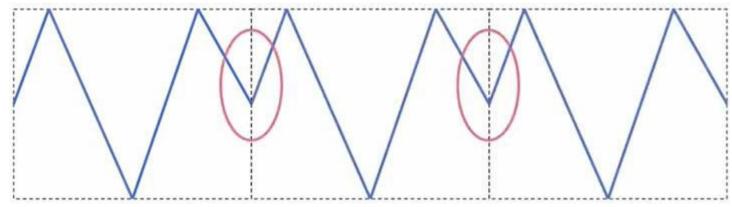
Opcija Integer number of cycles u bloku Simulate signal!

Bez regeneracije

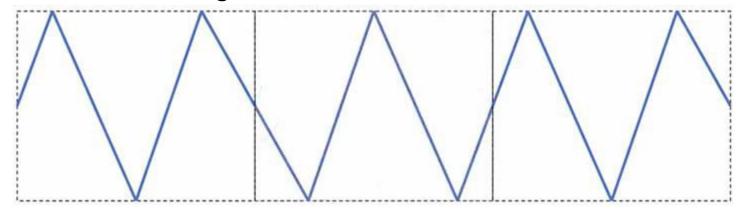




- Bez regeneracije
 - Treba dodati petlju
 - Kod bloka Simulate signal opcija Use continuous generation



Pomera se faza signala



Primer – generisanje signala iz fajla

