Main Updates
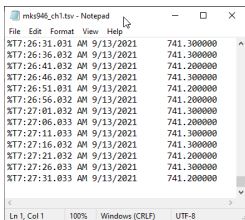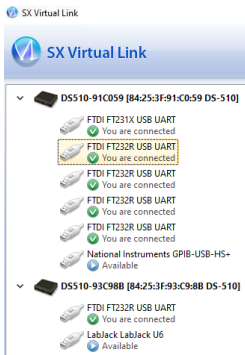
▶ Connection of six USB-to-Serial converters
  at slow-control rack

  ▷ Listed in `https:`

    `//github.com/uva-spin/Temperature-Pressure-VIs#device-communication-interface`

  ▷ Will watch the stability of Ethernet+USB connections

▶ Communication with LakeShore 218
  from target computer

  ▷ Succeeded, using test VI & PuTTY

  ▷ Updated `https://confluence.its.virginia.edu/display/twist/Slow+Controls`

▶ Continuous measurement & logging (CML)
  of MKS 946

  ▷ Made two sub VIs for CML
    (`add_data.vi` & `record_to_tsv.vi`)

  ▷ Kept running for 20 hours. OK

  ▷ Updated

    `https://github.com/uva-spin/Temperature-Pressure-VIs/tree/main/MKS_946_VIs`

▶ Plans
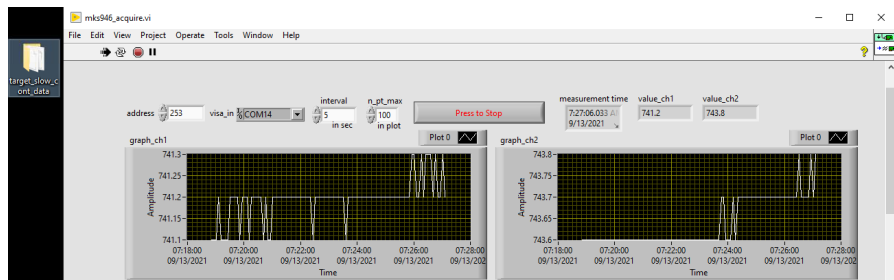
  ▷ Adopt the same CML VIs for other devices??

Continuous Measurement & Logging of MKS 946

▶ MKS 946: Vacuum System Controller
  ▷ Two pressure sensors (MKS 722B) are connected in air
  ▷ `https://github.com/uva-spin/Temperature-Pressure-VIs/tree/main/MKS_946_VIs`

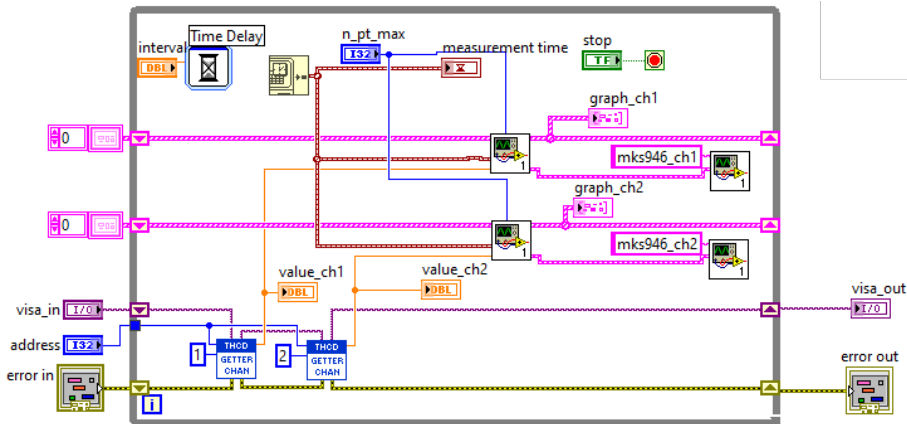▶ Updated interface VI: `mks946_acquire.vi`

  ▷ Measure the two sensor values every 5 seconds
  ▷ Plot last 100 measurements
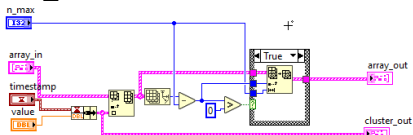 ▷ Record to TSV files under "`target_slow_cont_data`"

Diagram of `mks946_acquire.vi`
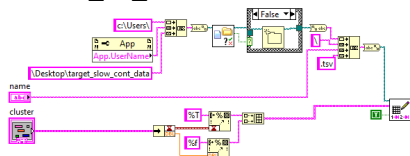

▶ Updated to use two sub VIs

► Sub VIs for CML

▷ `add_data.vi`

- ▷▷ Make a cluster of timestamp and measured value
- ▷▷ Add cluster to array
- ▷▷ Keep only last `n_max` clusters for plotting

▷ `record_to_tsv.vi`

- ▷▷ Auto-create a data folder at `c:\Users\[username]\Desktop\ target_slow_cont_data`
- ▷▷ Keep writing to `[name].tsv`

▷ Use the same/similar sub VIs for other devices??