Cryo Control Panel

▶ VIs on GitHub uva-spin repository:

https://github.com/uva-spin/e1039-target-controls/tree/master/Cryo-Control

  ▷ Last modified in Nov. 2018
  ▷ If you have/know a newer version, please let us know

▶ Status of VIs

  ▷ "level_probe_forhere.vi" and "getinfo_forhere.vi" need be renamed
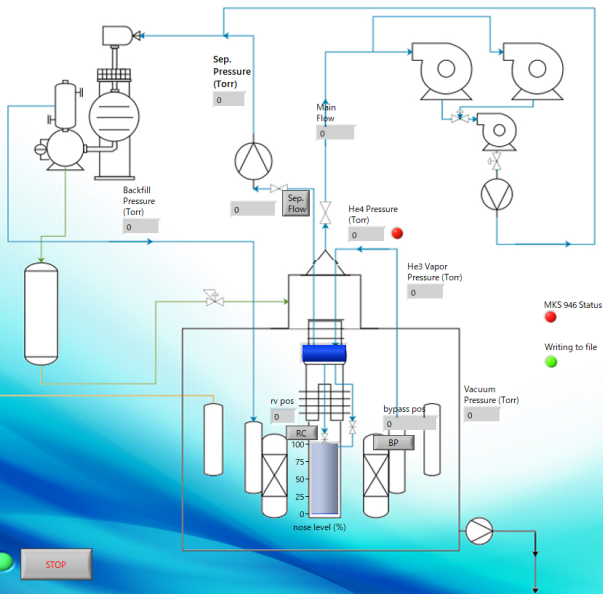 ▷ "main.vi" starts fine and detects the devices not connected
  ▷ Front panel — page 2
    ▷▷ Each device has its sub-panel for detailed info

▶ List of devices — page 3

▶ Plan — page 4

CryoControls

Sep. Pressure (Torr) `0`

Main Flow `0`

Backfill Pressure (Torr) `0`

Sep. Flow `0`

He4 Pressure (Torr) `0`

He3 Vapor Pressure (Torr) `0`

MKS 946 Status

Writing to file

rv pos `0`

RC 100- 75- 50- 25- 0-

bypass pos `0`

BP

Vacuum Pressure (Torr) `0`

nose level (%)

STOP

► Devices to be included

THCD 400	2×HFC + HFM	RS-232(?)
AMI 1700	LHe4 level probe	RS-232
Run valve	AM ST5-S(?)	??
Bypass valve	AM ST5-S(?)	??
MKS 670	MKS 690 (100 Torr)	GPIB
MKS 670	MKS 690 (1000 Torr)	RS-232
MKS 670	MKS 615	RS-232
MKS 946	2×MKS 722	RS-232

► Devices included at present

AMI 1700		RS-232	level_probe.vi
Run valve		RS-232	level_probe.vi
Bypass valve		RS-232	bypass.vi
MKS 670	He3 pressure	GPIB	He3ReadOut_gpib.vi
MKS 670	He4 pressure	RS-232	He3Readout.vi
MKS 946	Separator flow	RS-232	Flow_Monitor.vi
MKS 946	Seperator pressure	RS-232	Pressure_monitor.vi
MKS 946	Vacuum pressure	RS-232	Vac_Pressure_Monitor.vi
MKS 946	Main flow	RS-232	MainFlow_Monitor.vi
MKS 946	Backfill pressure	RS-232	Pressure_monitor_bkfl.vi

► Plan of VIs modification

1. Start reading MKS 670 and MKS 946
   - ▷▷ The controllers are ready on slow control rack
   - ▷▷ Need select proper COM ports

2. Start reading THCD 400
   - ▷▷ The controller is ready on slow control rack
   - ▷▷ Migrate
     `Temperature-Pressure-VIs/THCD_400_VIs/thcd_400_control_1.vi`
   - ▷▷ Resolve the problem in the existing VIs about the string handling

3. AMI 1700
   - ▷▷ Set up the signal-emulation circuit (Zulkaida & Waqar have info)
   - ▷▷ Reuse `level_probe.vi`

4. Run valve & bypass valve
   - ▷▷ Get test VIs from Vibodha
   - ▷▷ Discuss how to integrate with Vibodha et al.