

# GSC UI

Gas System Control User Interface

JINR

Joint Institute for Nuclear Research

# Project participants

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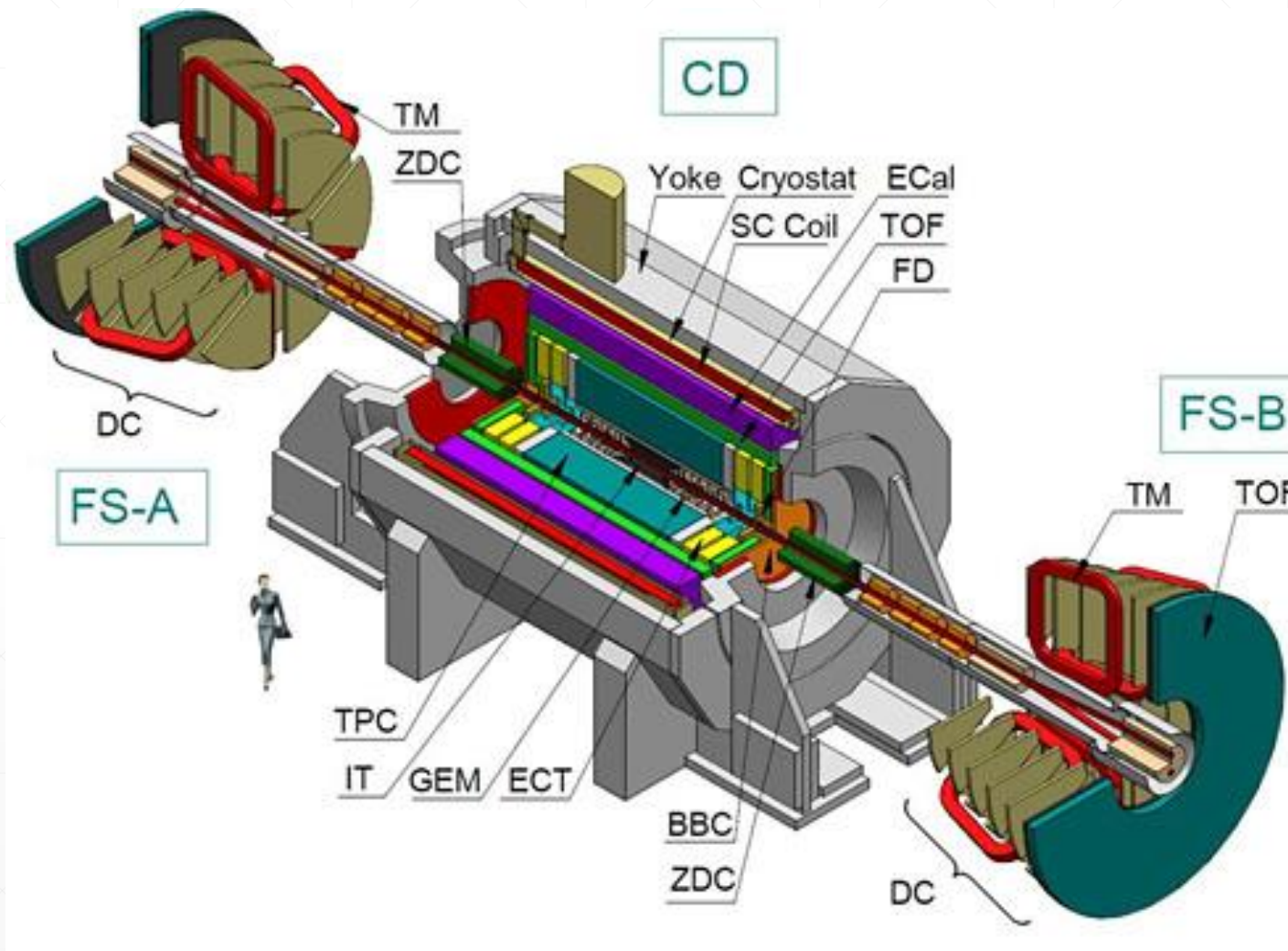
# Aim of the project

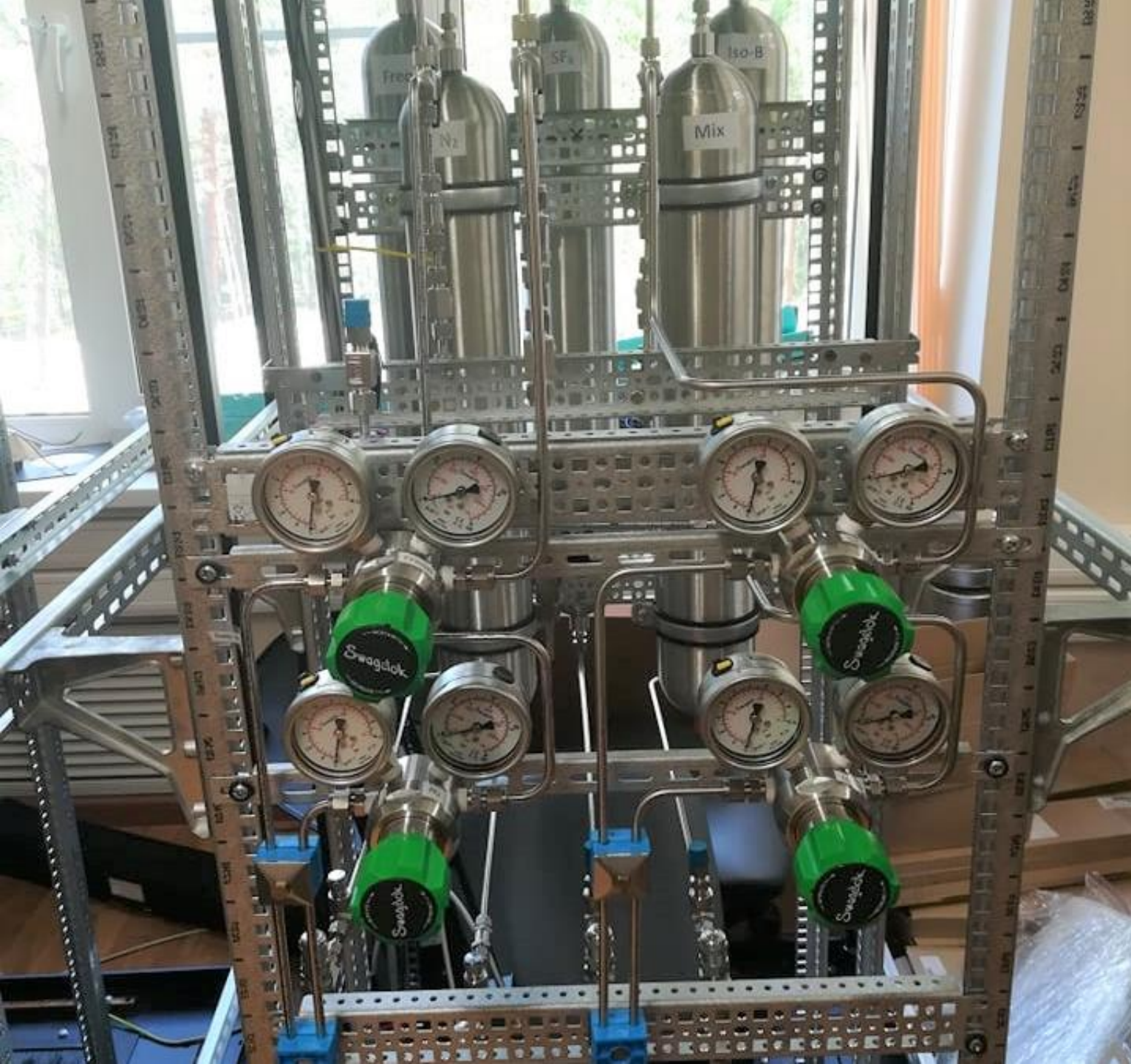
Developing User Interface for Gas System needed in a TOF (Time Of Flight) subdetector which is a part of MPD (Multi Purpose Detector).

Features of the Interface:

- Several levels of security access
  - User friendly environment for control of the system
  - Dynamic system of alerts and warnings
  - Process Values graphs on demand
  - Web Application for system monitoring
  - No direct connection with hardware
-

# MPD detector

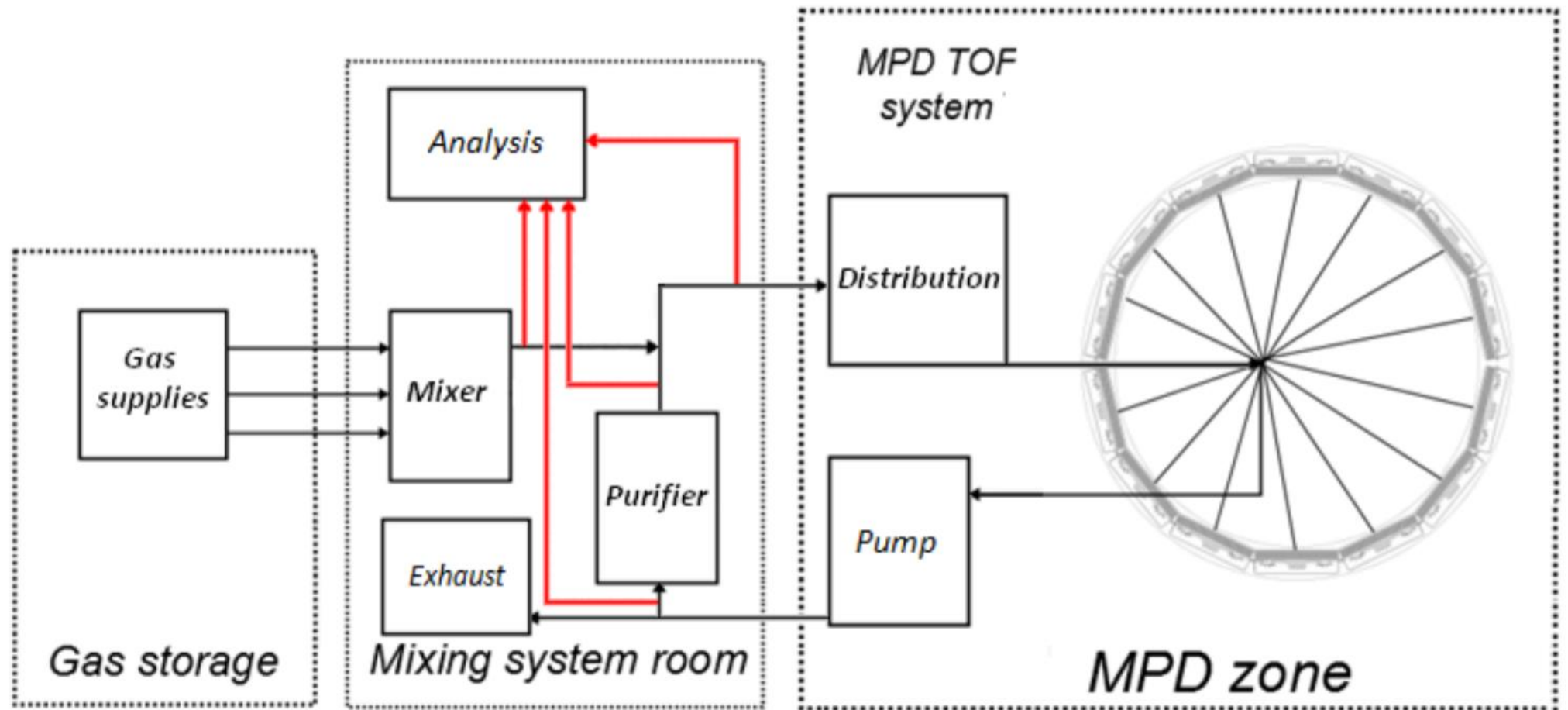




## TOF Gas System

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# Gas system structure scheme



# LabView/ G language









# DSC Module (Datalogging and Supervisory Control)

Domain Account Manager

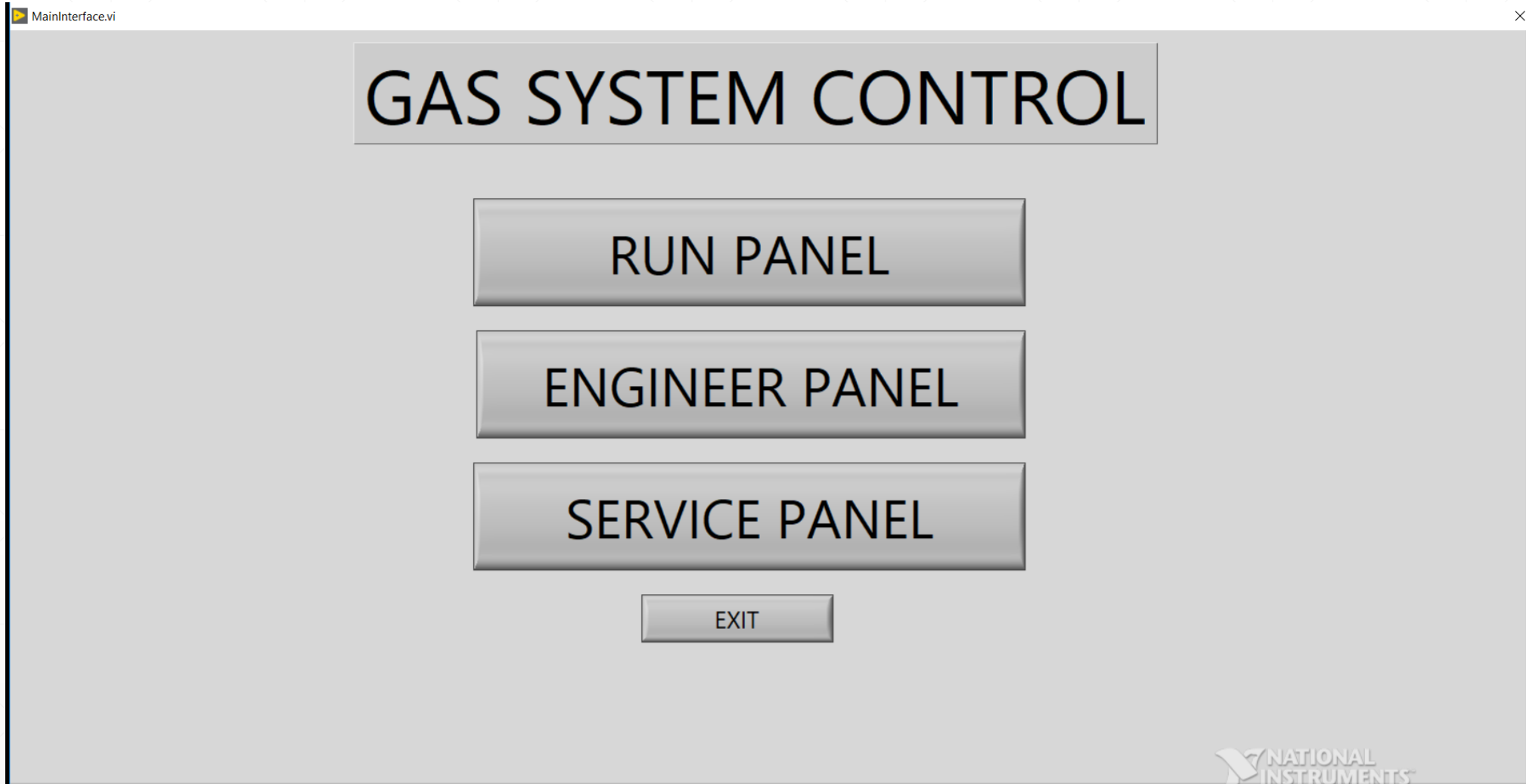
File Edit Domain Help

My Computer  
GSC  
Network Domains

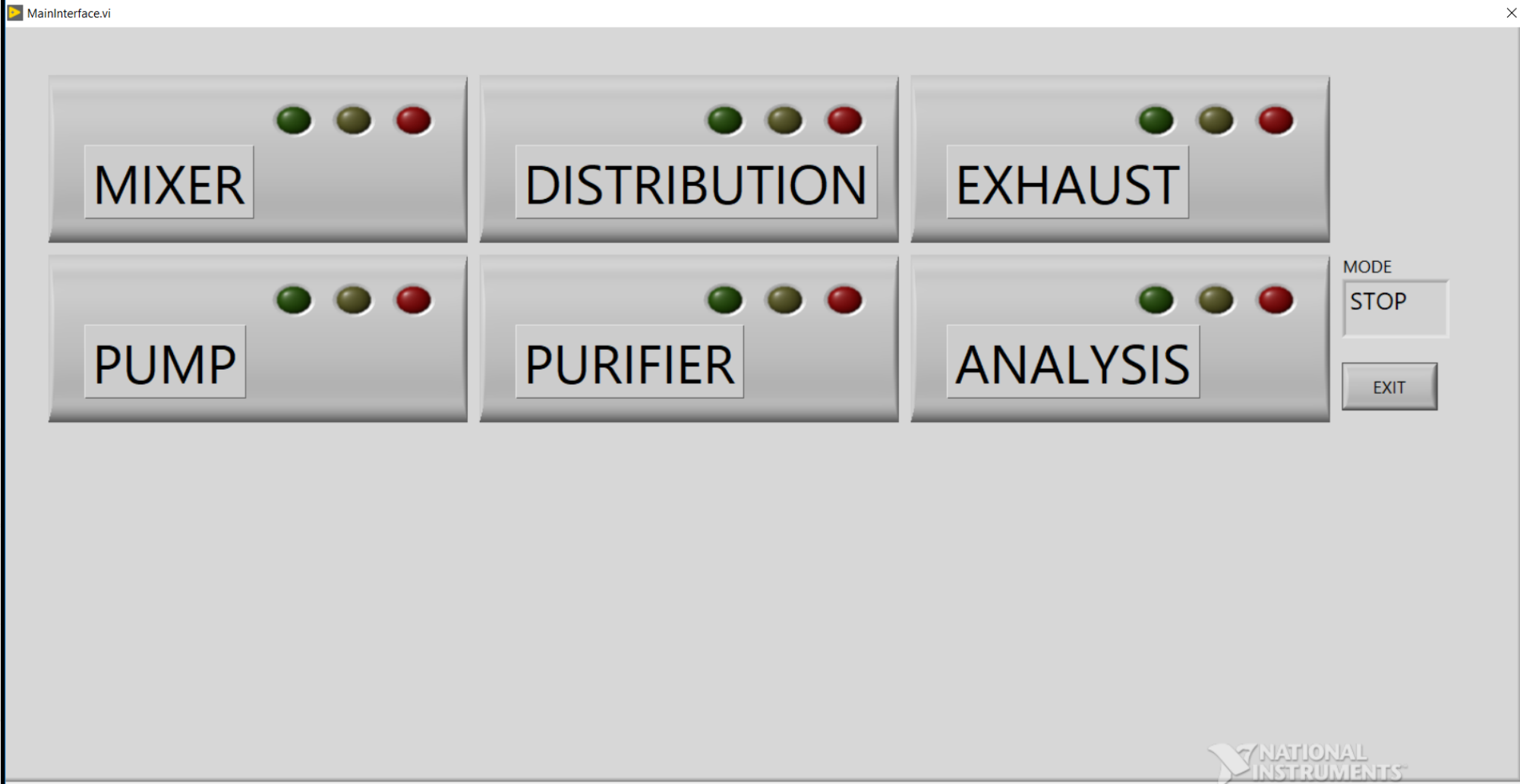
Username	Full Name	Description
 Administrator		Built-in account for administering use...
 Guest		Built-in account for granting guest ac...
 Operator		

Group Name	Description
 Administrators	Members can fully administer user accounts
 Guests	Members have guest access to the system
 Operators	Members granted general access to the system

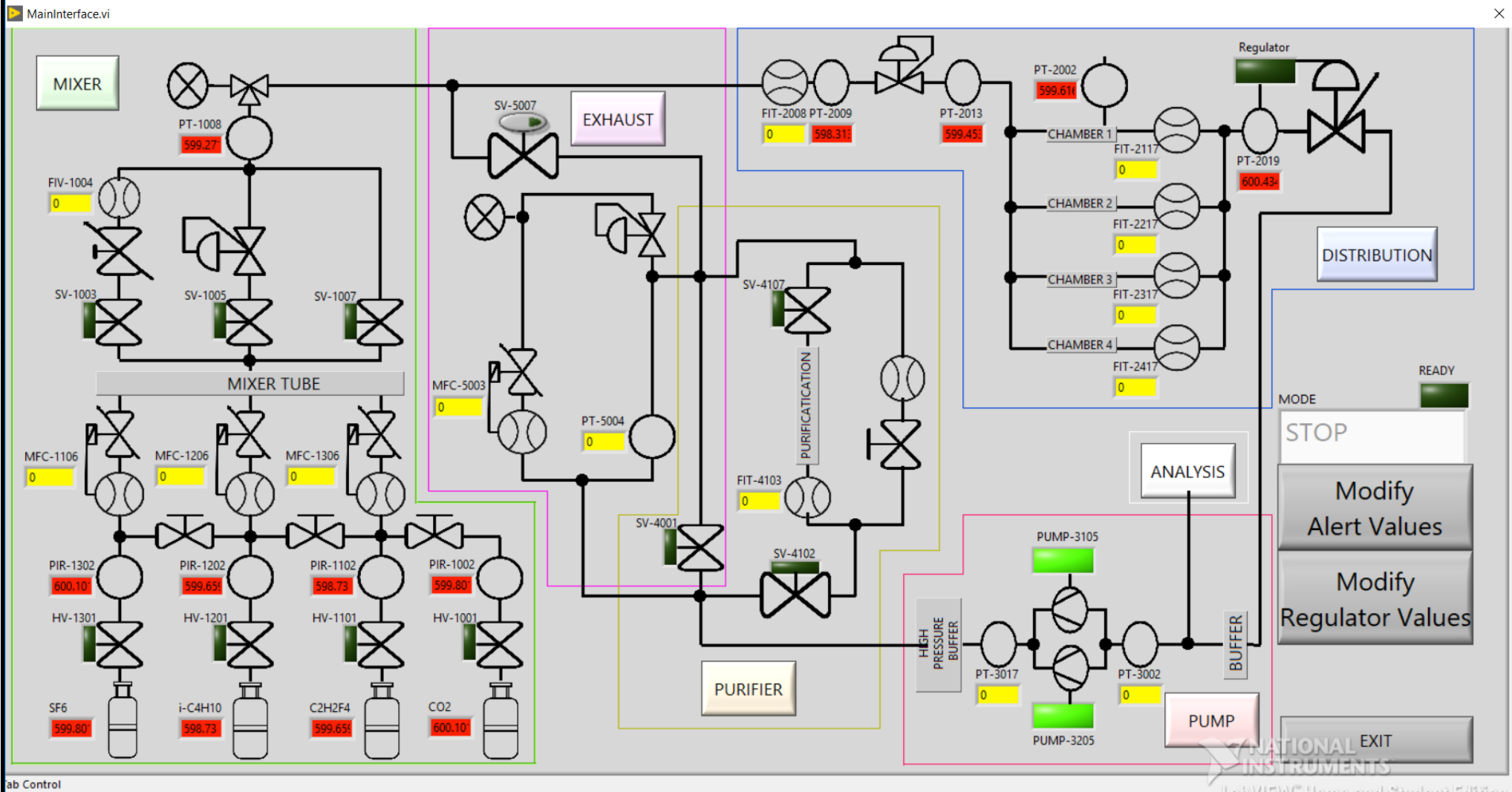
# Gas System Control



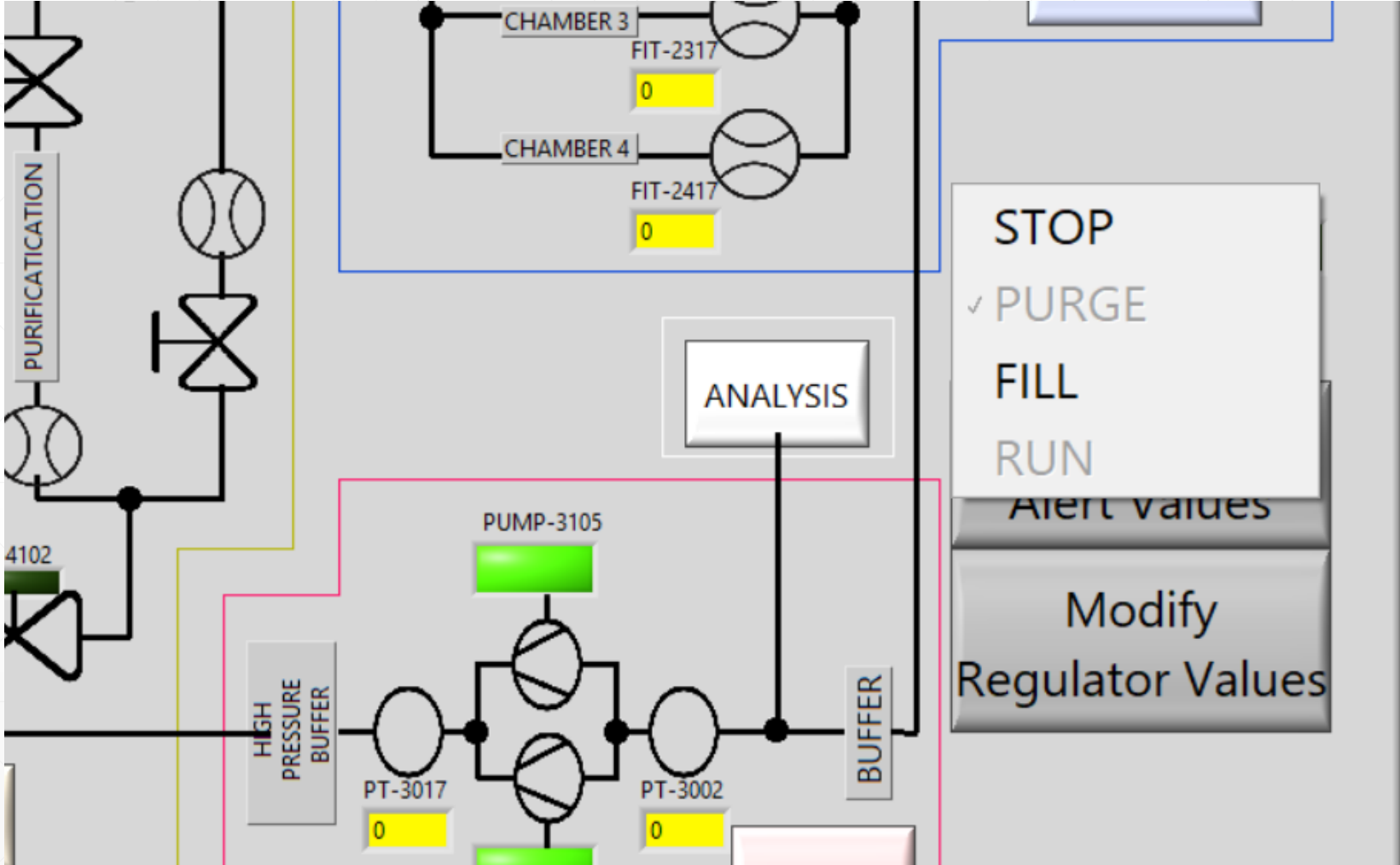
# Run Panel



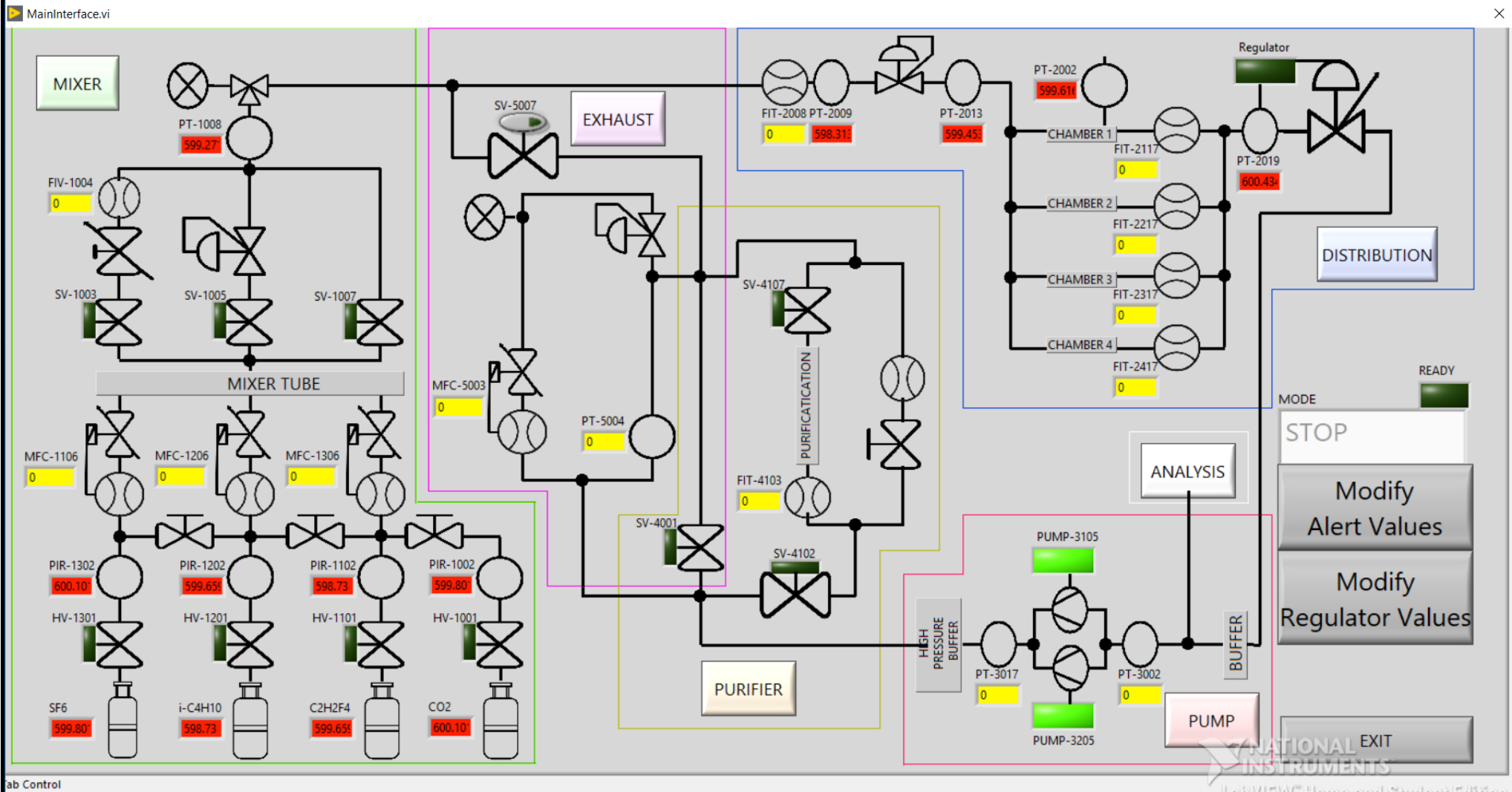
# Engineer Panel / Service Panel



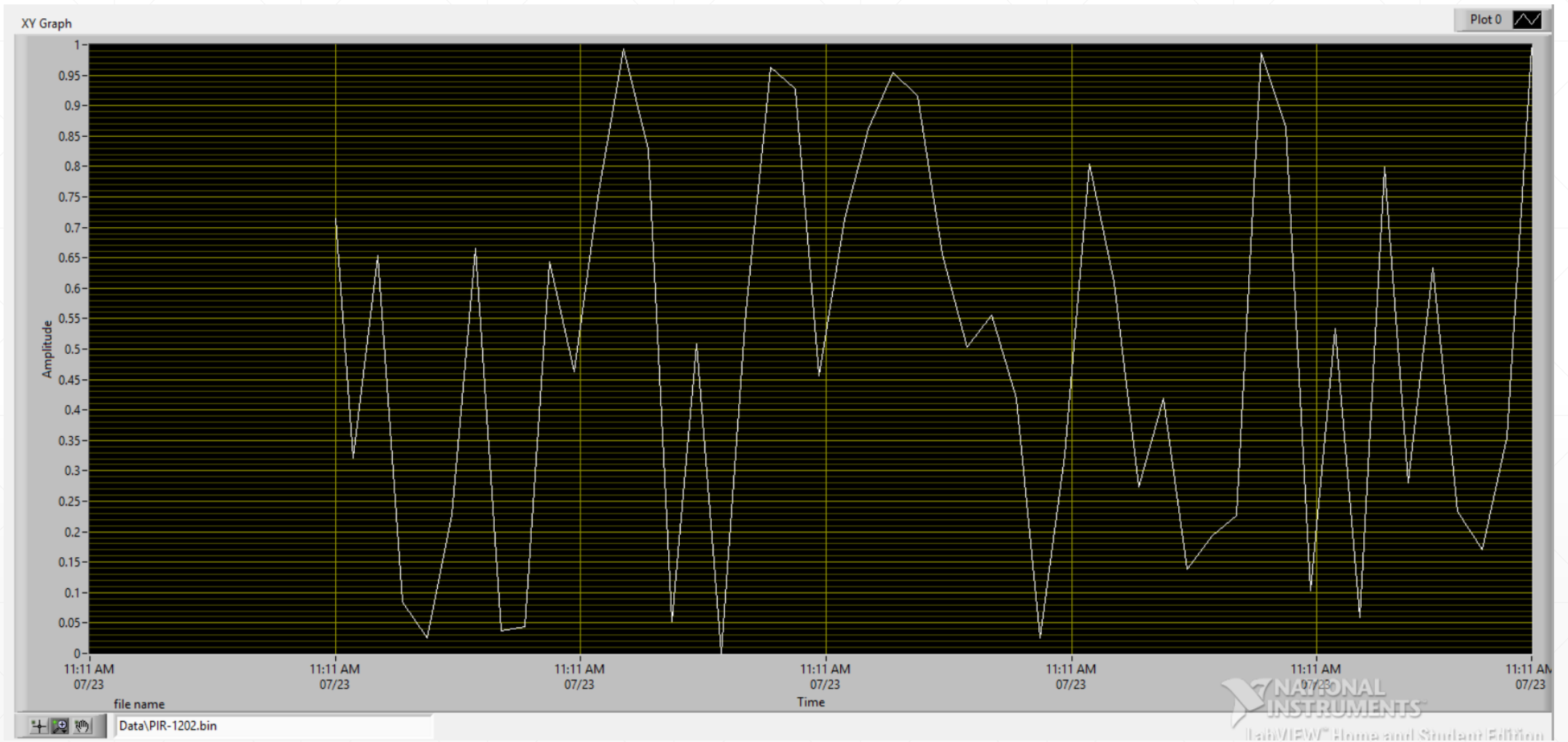
# Choice of the Mode



# Engineer Panel / Service Panel



# Graph on Demand



# Modify Alert Values

ModifyAlerts.vi

PIR-1002		PIR-1102		PIR-1202		PIR-1302		PT-1008		PT-2009		PT-2013	
High PIR-1002	VHigh PIR-1002	High PIR-1102	VHigh PIR-1102	High PIR-1202	VHigh PIR-1202	High PIR-1302	VHigh PIR-1302	High PT-1008	VHigh PT-1008	High PT-2009	VHigh PT-2009	High PT-2013	VHigh PT-2013
3	4	7	8	11	12	0	0	0	0	0	0	0	0
Low PIR-1002	VLow PIR-1002	Low PIR-1102	VLow PIR-1102	Low PIR-1202	VLow PIR-1202	Low PIR-1302	VLow PIR-1302	Low PT-1008	VLow PT-1008	Low PT-2009	VLow PT-2009	Low PT-2013	VLow PT-2013
2	1	6	5	10	9	0	0	0	0	0	0	0	0

PT-2002		PT-2019		PT-3002		PT-3017		PT-5004	
High PT-2002	VHigh PT-2002	High PT-2019	VHigh PT-2019	High PT-3002	VHigh PT-3002	High PT-3017	VHigh PT-3017	High PT-5004	VHigh PT-5004
0	0	0	0	0	0	0	0	0	0
Low PT-2002	VLow PT-2002	Low PT-2019	VLow PT-2019	Low PT-3002	VLow PT-3002	Low PT-3017	VLow PT-3017	Low PT-5004	VLow PT-5004
0	0	0	0	0	0	0	0	0	0

Flow

FIV-1004		FIT-2008		FIT-2117		FIT-2217		FIT-2317		FIT-2417		FIT-4103	
High FIV-1004	VHigh FIV-1004	High FIT-2008	VHigh FIT-2008	High FIT-2117	VHigh FIT-2117	High FIT-2217	VHigh FIT-2217	High FIT-2317	VHigh FIT-2317	High FIT-2417	VHigh FIT-2417	High FIT-4103	VHigh FIT-4103
0	0	0	0	0	0	0	0	0	0	0	0	0	0
Low FIV-1004	VLow FIV-1004	Low FIT-2008	VLow FIT-2008	Low FIT-2117	VLow FIT-2117	Low FIT-2217	VLow FIT-2217	Low FIT-2317	VLow FIT-2317	Low FIT-2417	VLow FIT-2417	Low FIT-4103	VLow FIT-4103
0	0	0	0	0	0	0	0	0	0	0	0	0	0

MFC-1106		MFC-1206		MFC-1306		MFC-5003	
High MFC-1106	VHigh MFC-1106	High MFC-1206	VHigh MFC-1206	High MFC-1306	VHigh MFC-1306	High MFC-5003	VHigh MFC-5003
0	0	0	0	0	0	0	0
Low MFC-1106	VLow MFC-1106	Low MFC-1206	VLow MFC-1206	Low MFC-1306	VLow MFC-1306	Low MFC-5003	VLow MFC-5003
0	0	0	0	0	0	0	0

Weight

SF6		i-C4H10		C2H2F4		CO2	
High SF6	VHigh SF6	High i-C4H10	VHigh i-C4H10	High C2H2F4	VHigh C2H2F4	High CO2	VHigh CO2
0	0	0	0	0	0	0	0
Low SF6	VLow SF6	Low i-C4H10	VLow i-C4H10	Low C2H2F4	VLow C2H2F4	Low CO2	VLow CO2
0	0	0	0	0	0	0	0

MODE

STOP Preparing

Import Data
Export Data
Save
Exit

LabVIEW Home and Student Edition

**THANK YOU FOR YOUR ATTENTION**

**Any questions?**

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