



SCADA/EMS Support

Nhat Nguyen



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International student from HCM City, Vietnam



Incoming senior at EWU



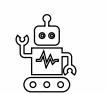
Electrical Engineering major



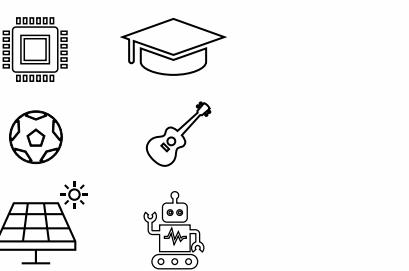
Sport and music enthusiast



Green energy advocate



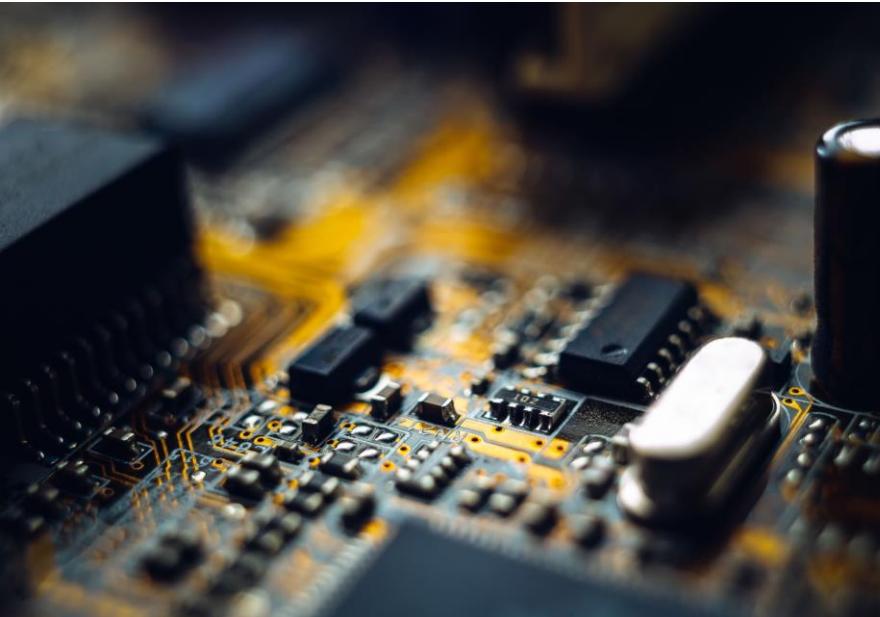
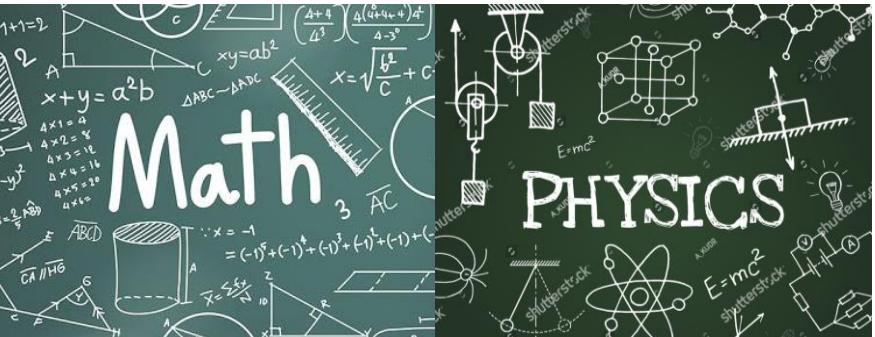
Technology lover



WHY EE AND ENERGY?



WHY EE AND ENERGY?

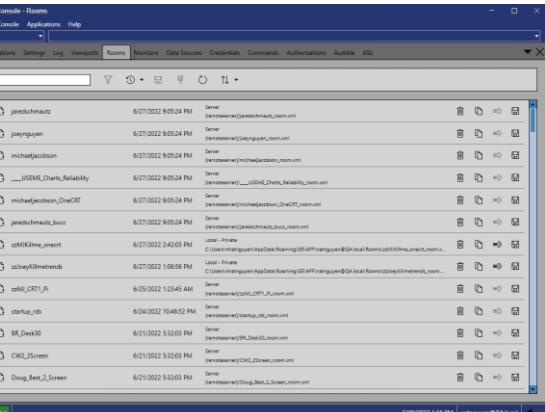
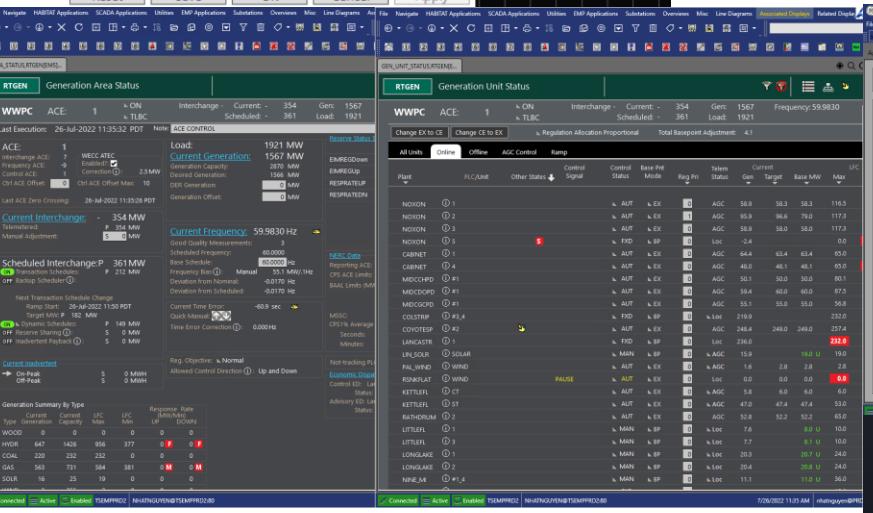
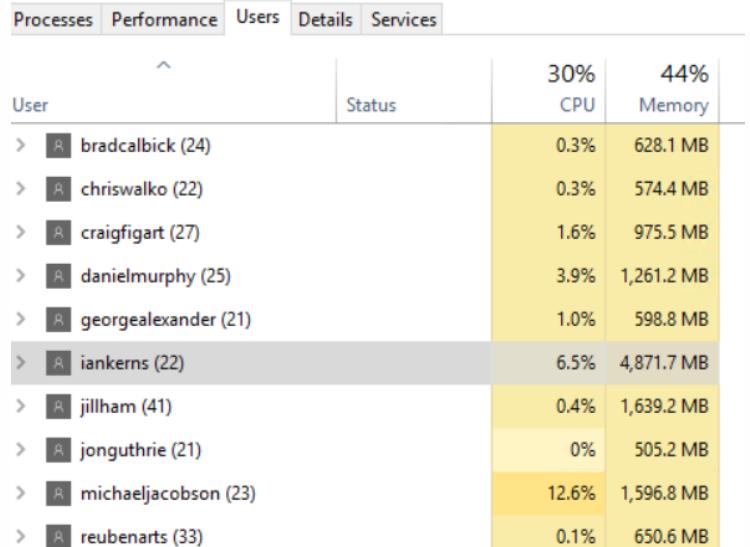
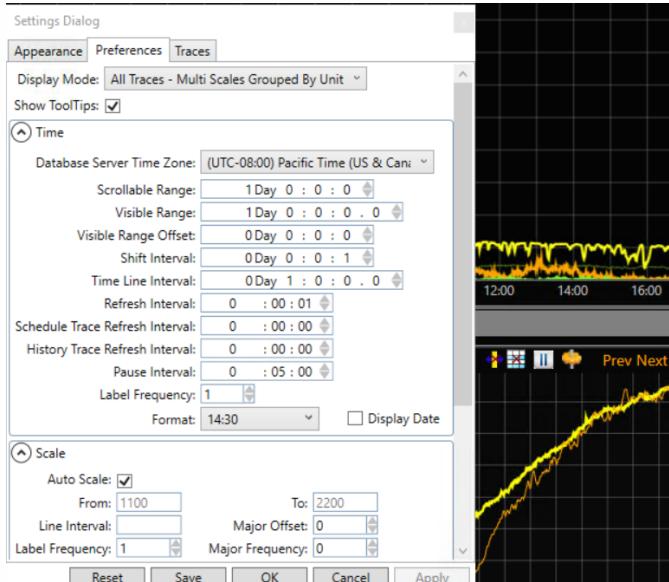
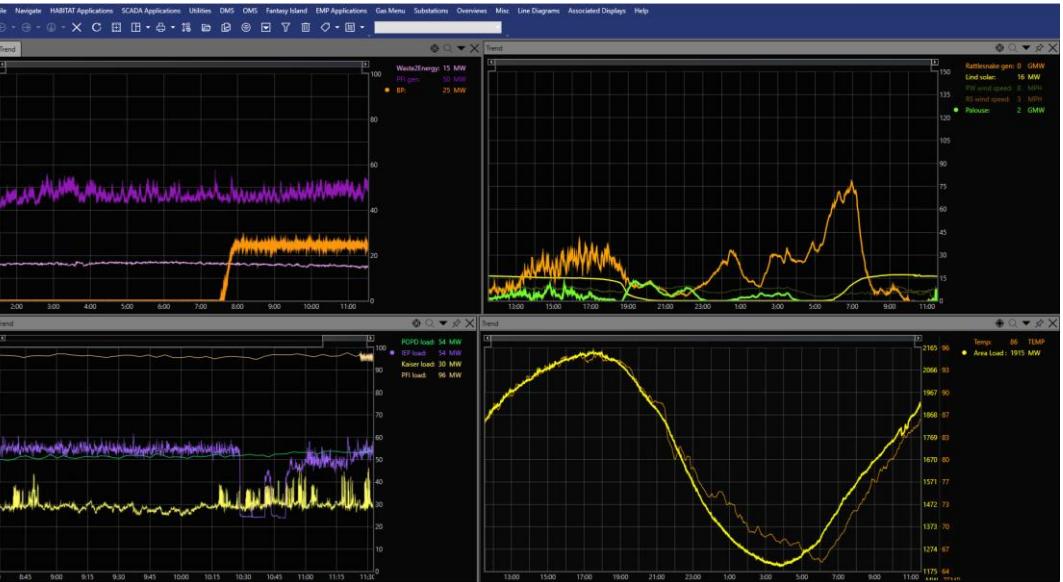


Some acronyms today

- SCADA – Supervisory control and data acquisition
- EMS – Energy management system
- SOO – System Operations Office
- BuCC – Backup Control Center
- SO – System Operators

Troubleshooting memory leak problem with PI Vision Displays

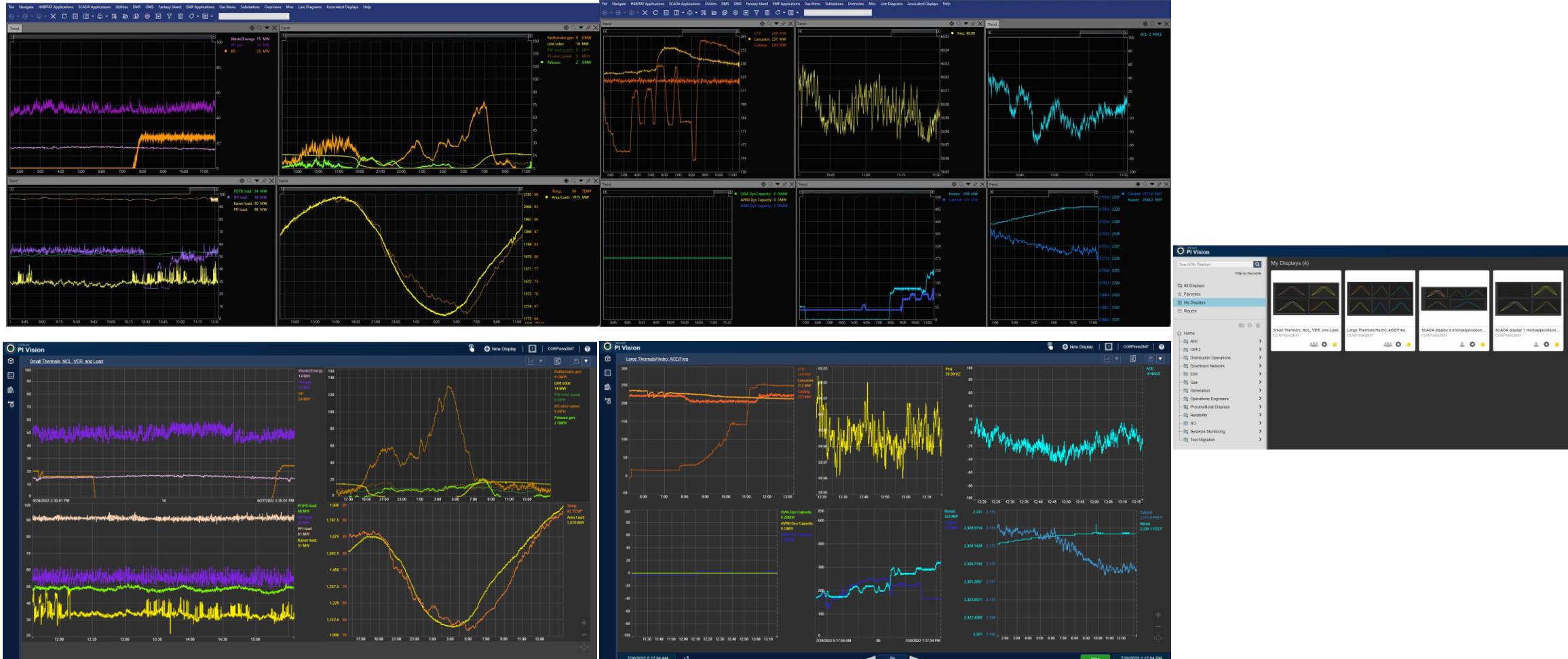
With the Real-Time Schedulers



Browser (RDServer)

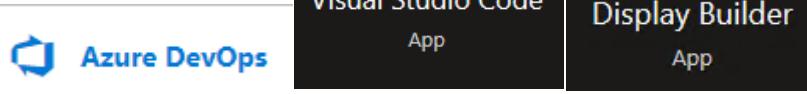
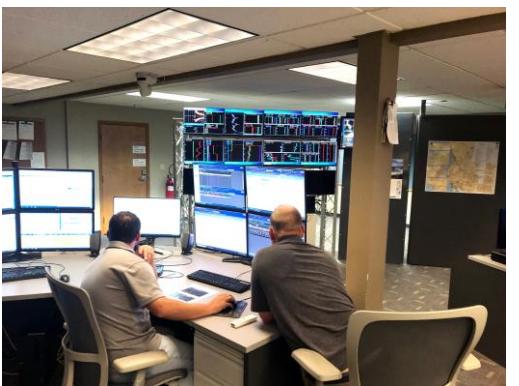
Troubleshooting memory leak problem with PI Vision Displays

With the Real-Time Schedulers

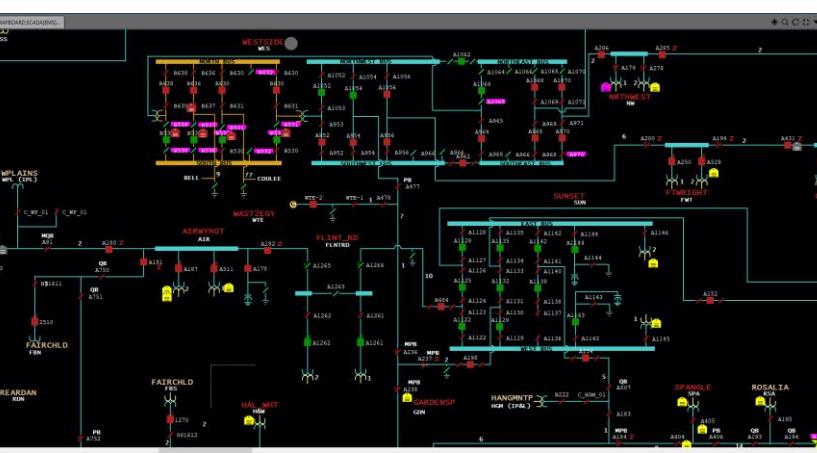


Redesign and Update the mapboard at the BuCC

Display builder, VSCode and AzDo



- Azure DevOps
- AVA_MAPBOARD_dset.dll - Sunset update done
983499bd N nhatnguyen Yesterday at 7:49 PM
 - AVA_MAPBOARD_dset.dll - Westside update done
5b6c4ee5 N nhatnguyen Yesterday at 4:58 PM
 - AVA_MAPBOARD_dset.dll - westside mess side fix 1
0beab6a1 N nhatnguyen Jul 8 at 4:30 PM
 - AVA_MAPBOARD_dset.dll - misc fixes 2
381bd95a N nhatnguyen Jun 30 at 4:23 PM
 - AVA_MAPBOARD_dset.dll - misc fixes
a41b15fd N nhatnguyen Jun 30 at 4:12 PM
 - AVA_MAPBOARD_dset.dll - FLINT_RD subs adjust rev1
4cd73d11 N nhatnguyen Jun 30 at 3:47 PM
 - FLINT_RD sub added
2da499fd N nhatnguyen Jun 30 at 3:09 PM



EMS - Engr Tasks

- Mapboard-BuCC - SEDP/EDPs
Last changed moments ago by you

Add label

Bucket: GUI Updates Progress: In progress Start date: 06/08/2021 Due date: 07/30/2021 Priority: Medium

Notes: Type a description or add notes here

Checklist 4 / 17

- ✓ Add Westside rebuild (230 and 115)
- Add Irvin
- Add Saddlem
- Add Magic Corner lines (PF-RAM & BLD-RAT)
- ✓ Opt-A18
- Othello
- ✓ Sonnet
- Southeast
- Rathdrum
- Cabinet
- Saint Maries
- Bell
- Beacon
- College Walnut
- South Othello
- ✓ Flint-Road
- Rockford
- Add an item

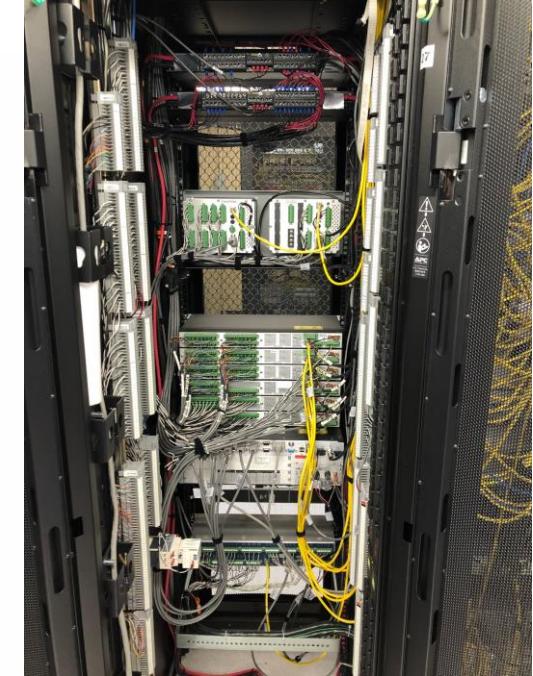
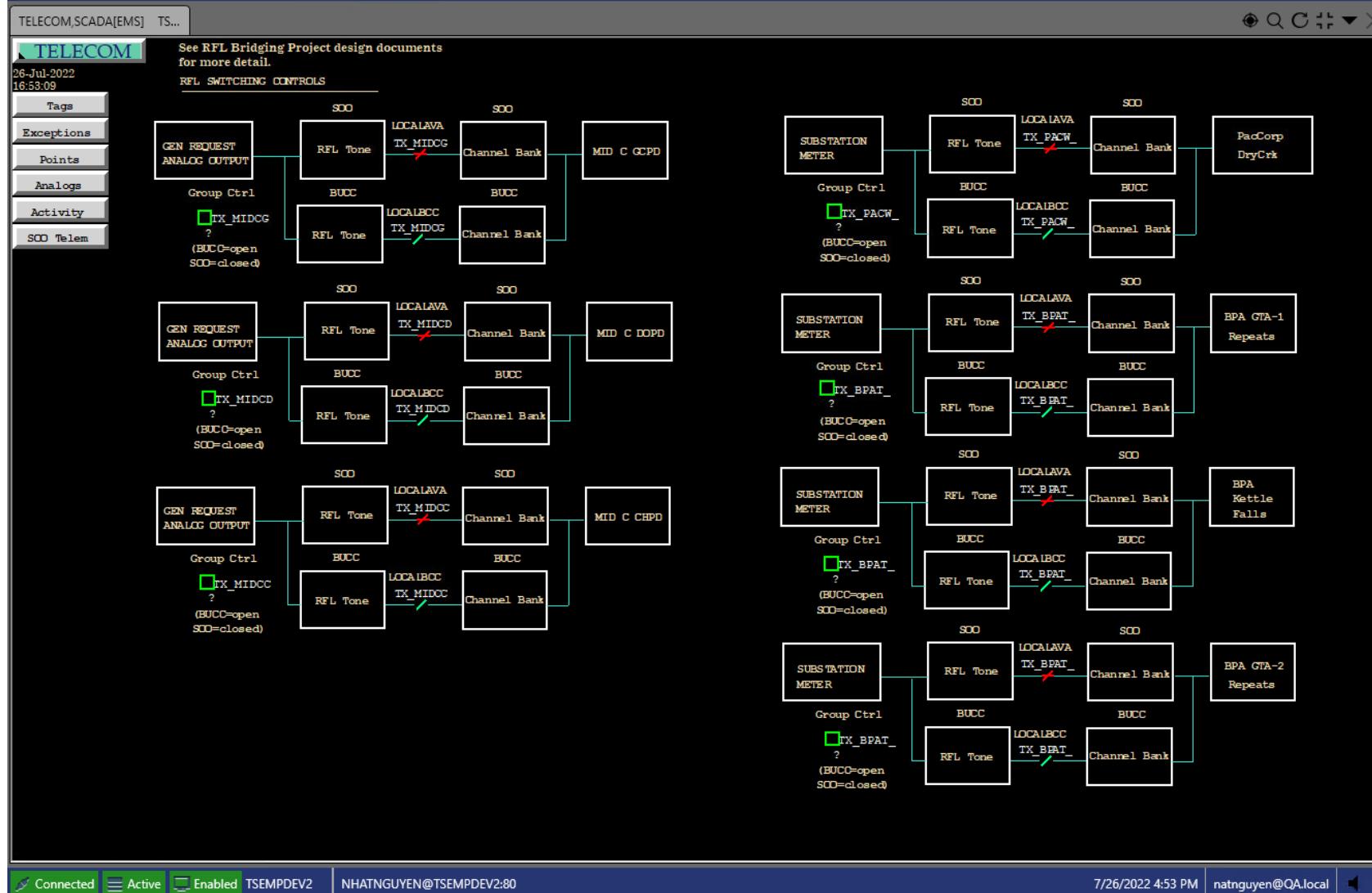
Attachments: Add attachment



VISTA

RFL Bridging Project

TELECOM display for switching control tests



SIM Config - TSDU001.pmr

File Edit View Validate Master Tools Help

DNP3 AcSELerator® QuickSet - [Settings Editor - TSDU001] (sele) (SEB-2440-006 v8.12.0.Z)

Physical Outputs

Name	Index	Disabled	Select Required	Master Duration Allowed	Activation Time	Control Type	Group Comm On	Open/Close Pair	Device Profile Name	Description
BB01:BB02	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB01: Remote Bit 1' and "RB02: Remote Bit 2"
BB03:BB04	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB03: Remote Bit 3' and "RB04: Remote Bit 4"
BB05:BB06	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB05: Remote Bit 5' and "RB06: Remote Bit 6"
BB07:BB08	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB07: Remote Bit 7' and "RB08: Remote Bit 8"
BB09:BB10	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB09: Remote Bit 9' and "RB10: Remote Bit 10"
BB11:BB12	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB11: Remote Bit 11' and "RB12: Remote Bit 12"
BB13:BB14	6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB13: Remote Bit 13' and "RB14: Remote Bit 14"
BB15:BB16	7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	Trip/Close	<input type="checkbox"/>	<input type="checkbox"/>		Remote Bit Pair containing "RB15: Remote Bit 15' and "RB16: Remote Bit 16"

Binary Outputs

Selected

Name	Description	Category
CB01	Control Bit 1	Control Bits
CB02	Control Bit 2	Control Bits
CB03	Control Bit 3	Control Bits
CB04	Control Bit 4	Control Bits
CB05	Control Bit 5	Control Bits
CB06	Control Bit 6	Control Bits
CB07	Control Bit 7	Control Bits
CB08	Control Bit 8	Control Bits
CB09	Control Bit 9	Control Bits
CB10	Control Bit 10	Control Bits
CB11	Control Bit 11	Control Bits
CB12	Control Bit 12	Control Bits
CB13	Control Bit 13	Control Bits
CB14	Control Bit 14	Control Bits
CB15	Control Bit 15	Control Bits
CB16	Control Bit 16	Control Bits
CB17	Control Bit 17	Control Bits
CB18	Control Bit 18	Control Bits
CB19	Control Bit 19	Control Bits
CB20	Control Bit 20	Control Bits
CB21	Control Bit 21	Control Bits
CB22	Control Bit 22	Control Bits
CB23	Control Bit 23	Control Bits
CB24	Control Bit 24	Control Bits
CB25	Control Bit 25	Control Bits
CB26	Control Bit 26	Control Bits
CB27	Control Bit 27	Control Bits
CB28	Control Bit 28	Control Bits
CB29	Control Bit 29	Control Bits
CB30	Control Bit 30	Control Bits
CB31	Control Bit 31	Control Bits

Selected

Setting	Value	Description
BI_27	IN312	Additional Card Digital input
BI_28	IN313	Additional Card Digital input
BI_29	IN314	Additional Card Digital input
BI_30	IN315	Additional Card Digital input
BI_31	IN316	Additional Card Digital input
BI_32	ENABLED	Relay Enabled
BI_33	STFAIL	Device Diagnostic Failure
BI_34	STSET	Settings Changed
BI_35	LT01	Latch bit variable 1
BI_36	LT02	Latch bit variable 2
BI_37	LT03	Latch bit variable 3
BI_38	LT04	Latch bit variable 4
BI_39	LT05	Latch bit variable 5
BI_40	LT06	Latch bit variable 6
BI_41	LT07	Latch bit variable 7
BI_42	LT08	Latch bit variable 8
BI_43	NA	NA

Latch Bit Set/Reset Equations

ELAT SELogic Latches

8 Range = 1 to 32, N

Latch Bit 1

SET01 SET01 (SELogic)

NOT LT01 AND R_TRIG RB02

RST01 RST01 (SELogic)

LT01 AND R_TRIG RB01

Latch Bit 2

SET02 SET02 (SELogic)

NOT LT01 AND R_TRIG RB04

RST02 RST02 (SELogic)

LT01 AND R_TRIG RB03

Latch Bit 3

SET03 SET03 (SELogic)

NOT LT01 AND R_TRIG RB06

RST03 RST03 (SELogic)

LT01 AND R_TRIG RB05

Latch Bit 4

SET04 SET04 (SELogic)

NOT LT01 AND R_TRIG RB08

RST04 RST04 (SELogic)

LT01 AND R_TRIG RB07

Latch Bit 5

SET05 SET05 (SELogic)

NOT LT01 AND R_TRIG RB10

RST05 RST05 (SELogic)

LT01 AND R_TRIG RB09

Latch Bit 6

SET06 SET06 (SELogic)

NOT LT01 AND R_TRIG RB12

RST06 RST06 (SELogic)

LT01 AND R_TRIG RB11

Latch Bit 7

SET07 SET07 (SELogic)

NOT LT01 AND R_TRIG RB14



Learning Opportunity Out-on-the-field

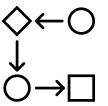


Learning Opportunity Out-on-the-field



THANK YOU, AVISTA!

SCADA Team



“Couldn’t be on our end”



SEDP Team



Mentor



Westra, Levi - Available - Video Capable



SEDP Sponsors, Champions, and Facilitators



Rosentrater, Heather - Available - Video Capable
• Sr VP Energy Delivery, Executive Officers



DiLuciano, Josh - Available - Video Capable
Dir Elec Engineering, Electrical Engineering



Purviance, Chris - Available - Video Capable
• Sr HR Manager, HR Labor & Emp Relations



Greenney, Caitlin - Available - Video Capable
Engineer, Electric Dist Design



Godinez, Cesar - Available - Video Capable
• Out of Office



Letsch, Sarah - Available - Video Capable
• Hello,



Bean, Jessica - Away 2 hours
HR Recruiter DO, HR Analytics & Compliance