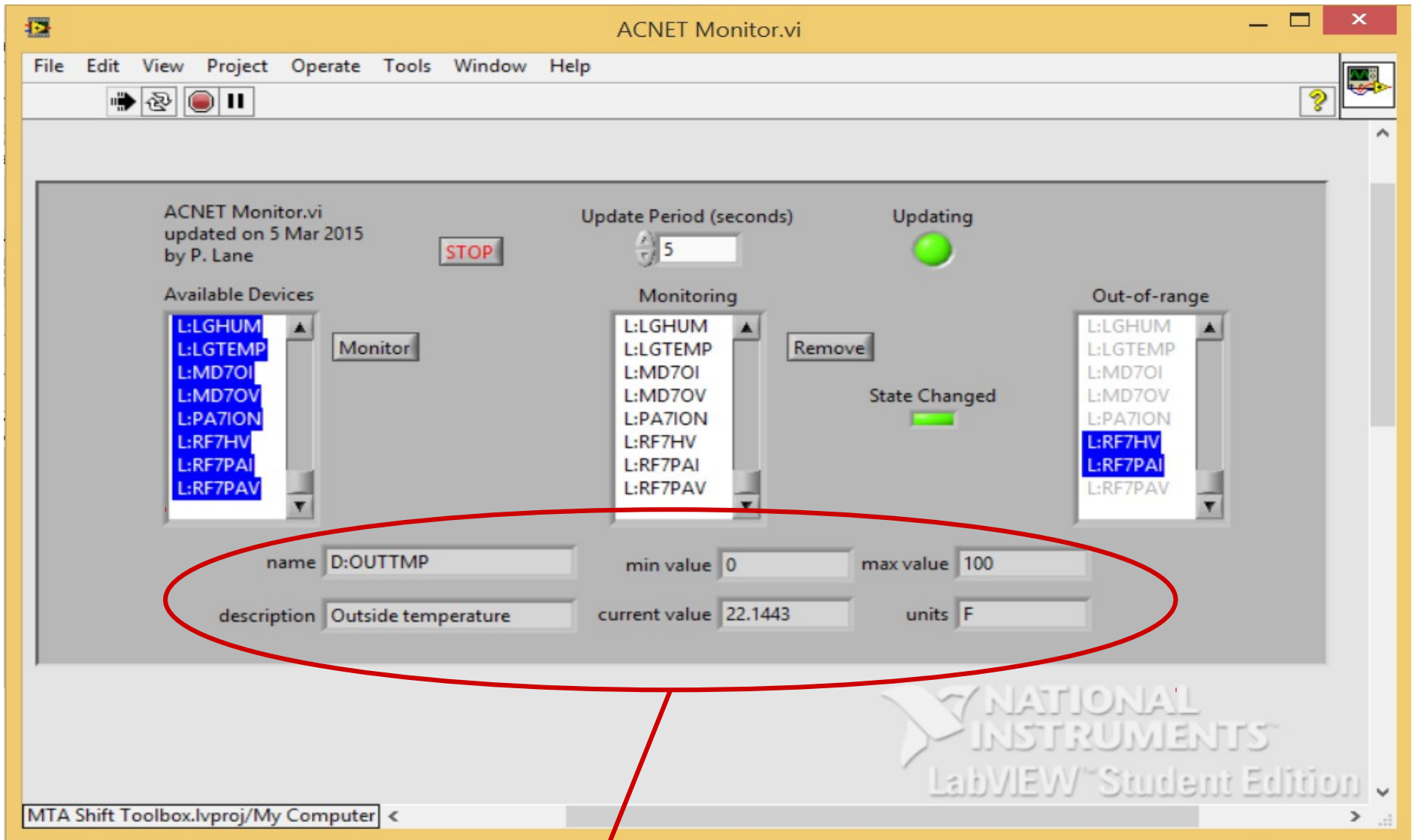


Monitoring Software

Peter Lane
*Illinois Institute of
Technology*

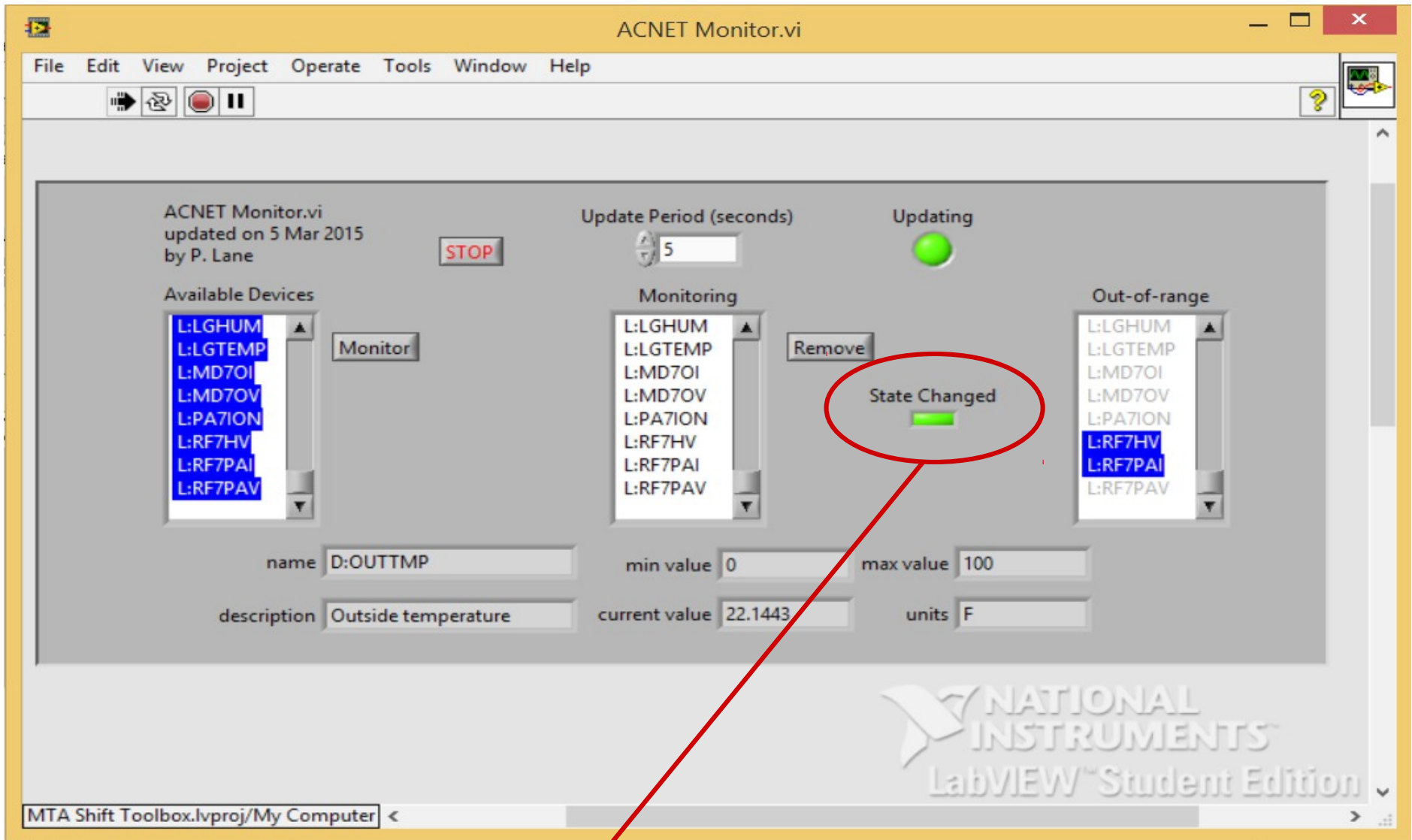
MTA Shifter Training

ACNET Monitor



- Click on a device in any of the three list boxes to get device information.

ACNET Monitor



- Alert sound only if the set of out-of-range devices changes

ACNET Devices Editor

ACNET Devices Editor.vi
updated on 24 Feb 2015
by P. Lane

ACNET Devices

Name	Minimum Value	Maximum Value	Units	Description
D:OUTTMP	0.0000E+0	1.0000E+2	F	Outside temperature
E:201VAC	1.0000E-8	1.0000E-6	Torr	Cavity top vacuum
E:C2ACH4	2.0000E+1	3.5000E+1	PSIA	Coax gas pressure
E:C2AMPL	0.0000E+0	0.0000E+0	dBm	Signal generator drive level
E:C2APR1	6.0000E+1	9.0000E+1	PSIG	Tuner actuator input pressure
E:C2APR2	-1.0000E+0	1.0000E+1	PSIG	Tuner actuator push pressure
E:C2APR3	-1.0000E+0	2.0000E+1	PSIG	Tuner actuator pull pressure
E:C2CBIG	1.0000E-8	1.0000E-6	Torr	Cavity bot vacuum
E:C2CLIG	0.0000E+0	0.0000E+0	Torr	Left coupler vacuum IG
E:C2CLPR	1.0000E-7	1.0000E-6	Torr	Left coupler vacuum CCG
E:C2CRIG	0.0000E+0	0.0000E+0	Torr	Right coupler vacuum IG
E:C2CRPR	1.0000E-7	1.0000E-6	Torr	Right coupler vacuum CCG
E:C2DTC	-4.5000E+0	5.0000E-1	C	Cavity temperature differential
E:C2FL01	8.0000E-1	1.2000E+0	GPM	Coupler water flow
E:C2FL03	8.0000E-1	1.2000E+0	GPM	Cavity body water flow
E:C2FREQ	1.2200E+0	1.2500E+0	MHz	Cavity frequency - 200 MHz
E:C2FRG1	1.0000E-8	1.0000E-6	Torr	Vessel vacuum FRG
E:C2FRG2	1.0000E-8	1.0000E-6	Torr	Getter manifold vacuum IG

ACNET Devices File
C:\Users\plane\Dropbox\Research\MTA\DAQ VIs\MTA Shift Toolbox\device_limits_list.xml

- Steps to update device information: highlight, change values, Remove, Add

ACNET Devices Editor

ACNET Devices Editor.vi
updated on 24 Feb 2015
by P. Lane

ACNET Devices

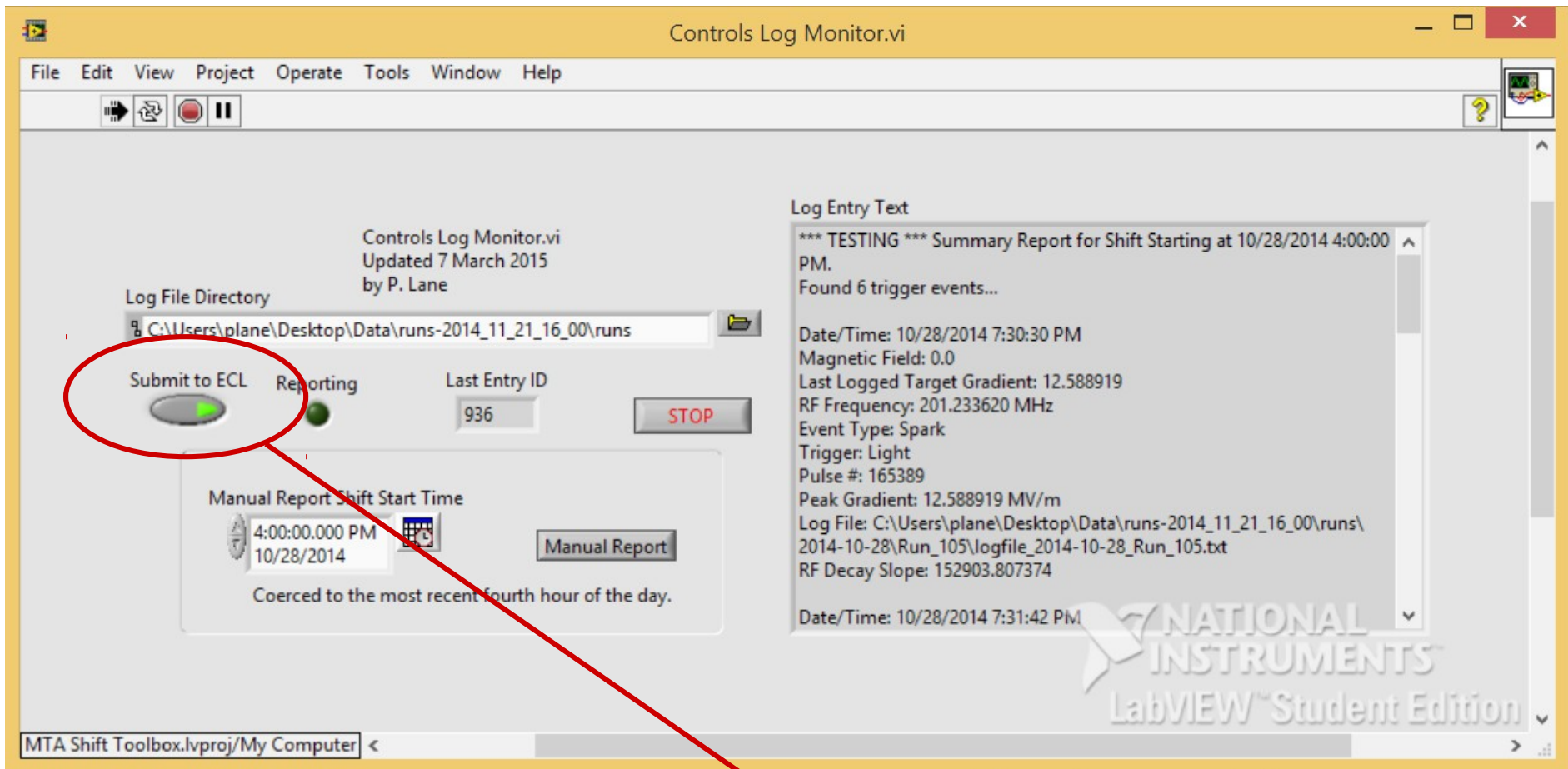
Name	Minimum Value	Maximum Value	Units	Description
D:OUTTMP	0.0000E+0	1.0000E+2	F	Outside temperature
E:201VAC	1.0000E-8	1.0000E-6	Torr	Cavity top vacuum
E:C2ACH4	2.0000E+1	3.5000E+1	PSIA	Coax gas pressure
E:C2AMPL	0.0000E+0	0.0000E+0	dBm	Signal generator drive level
E:C2APR1	6.0000E+1	9.0000E+1	PSIG	Tuner actuator input pressure
E:C2APR2	-1.0000E+0	2.0000E+1	PSIG	Tuner actuator push pressure
E:C2APR3	-1.0000E+0	2.0000E+1	PSIG	Tuner actuator pull pressure
E:C2CBIG	1.0000E-8	1.0000E-6	Torr	Cavity bot vacuum
E:C2CLIG	0.0000E+0	0.0000E+0	Torr	Left coupler vacuum IG
E:C2CLPR	1.0000E-7	1.0000E-6	Torr	Left coupler vacuum CCG
E:C2CRIG	0.0000E+0	0.0000E+0	Torr	Right coupler vacuum IG
E:C2CRPR	1.0000E-7	1.0000E-6	Torr	Right coupler vacuum CCG
E:C2DTC	-4.5000E+0	5.0000E-1	C	Cavity temperature differential
E:C2FL01	8.0000E-1	1.2000E+0	GPM	Coupler water flow
E:C2FL03	8.0000E-1	1.2000E+0	GPM	Cavity body water flow
E:C2FREQ	1.2200E+0	1.2500E+0	MHz	Cavity frequency - 200 MHz
E:C2FRG1	1.0000E-8	1.0000E-6	Torr	Vessel vacuum FRG
E:C2FRG2	1.0000E-9	1.0000E-6	Torr	Getter manifold vacuum IG

ACNET Devices File
C:\Users\plane\Dropbox\Research\MTA\DAO V1\MTA Shift Toolbox\device_limits_list.xml

NATIONAL INSTRUMENTS
LabVIEW Student Edition

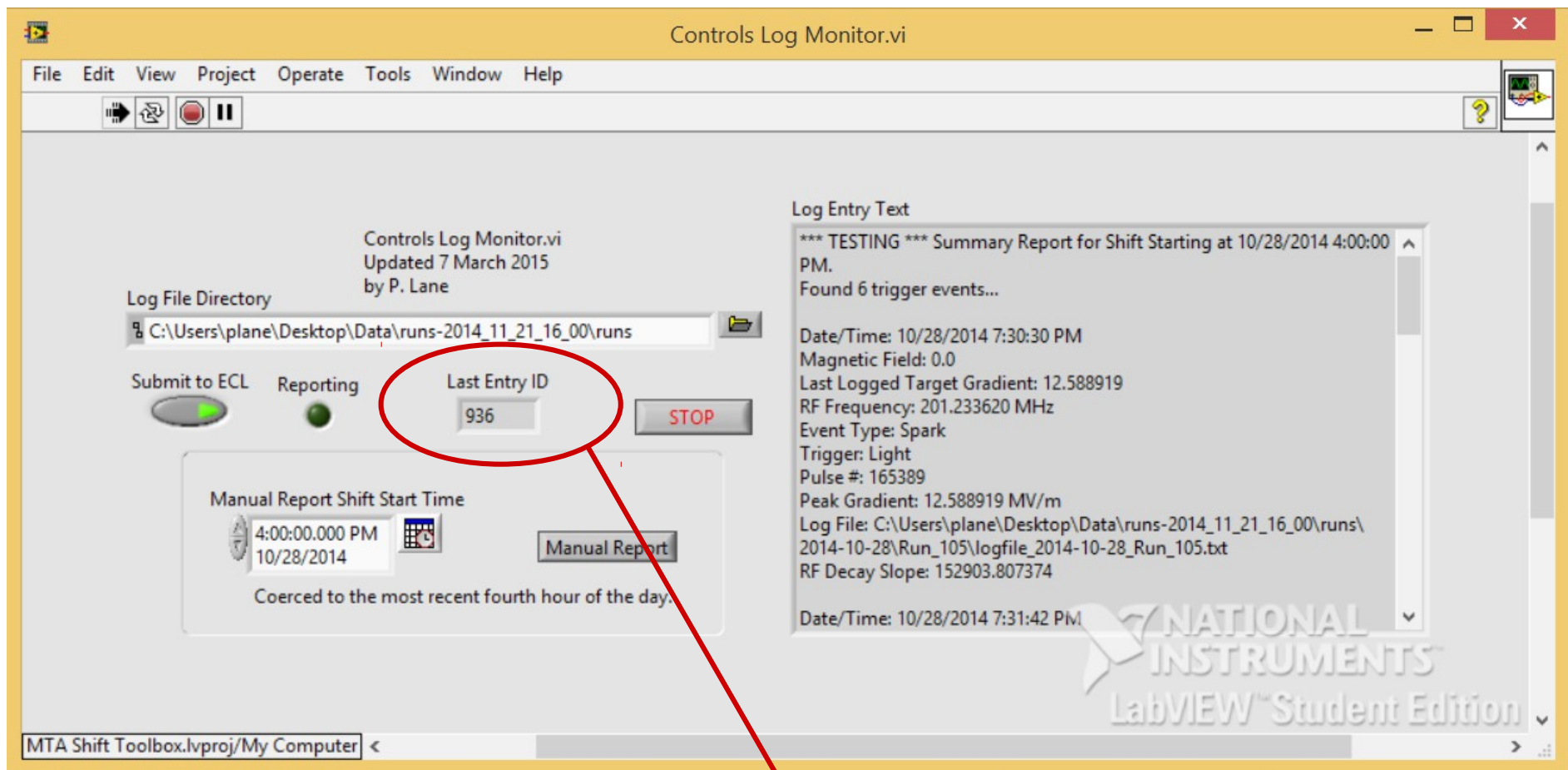
•Don't forget to save! Restart ACNET Monitor to load changes.

Controls Log Monitor



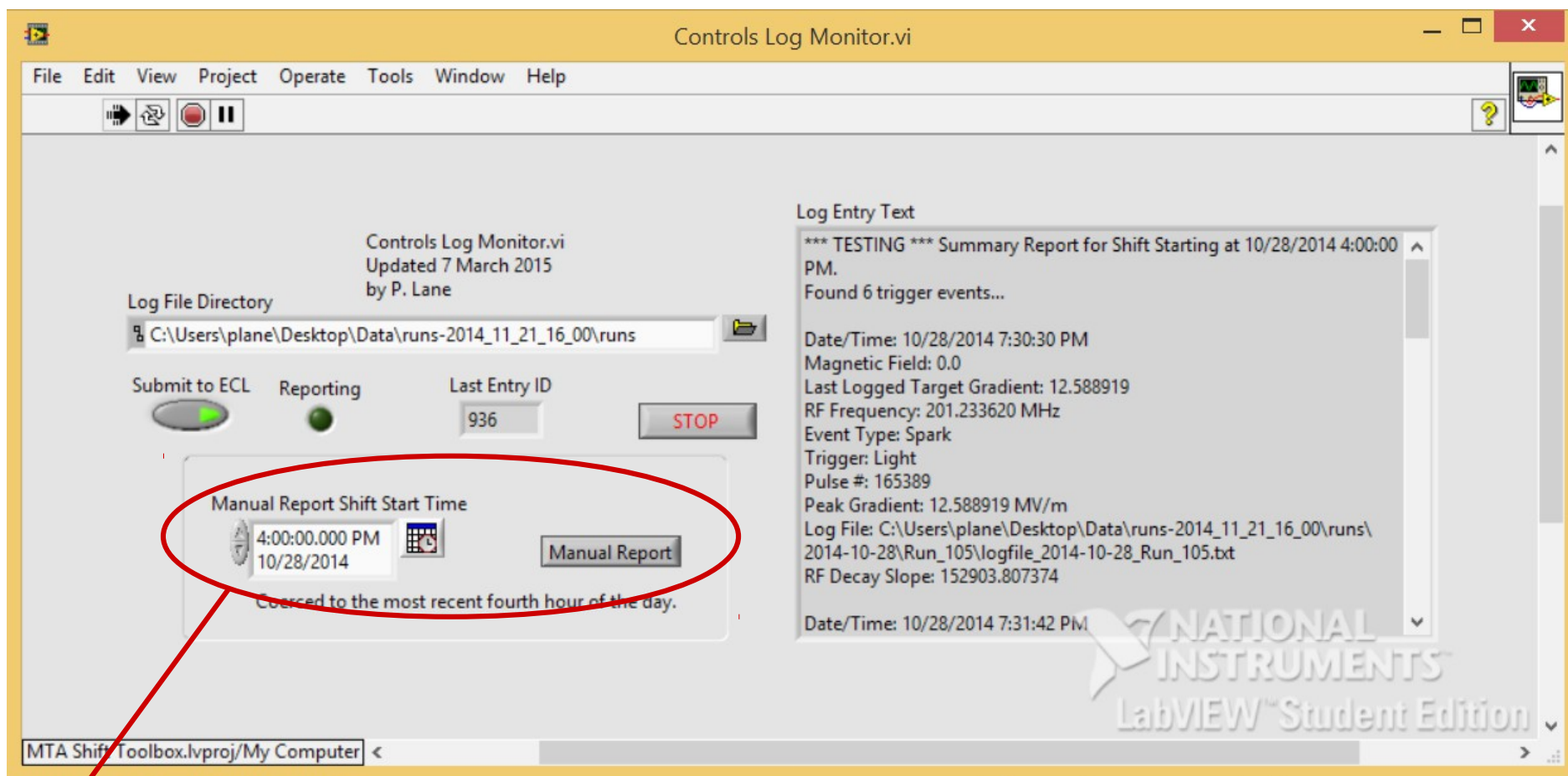
- Submit to ECL button must be lit in order for report to appear in the ECL logbook.

Controls Log Monitor



- Logbook entry ID of the last report submitted. Will be -1 if submission didn't occur.

Controls Log Monitor



- Reports should happen **automatically** every fourth hour of the day (12AM, 4AM, ..., 8PM)
- Reports can also be generated manually. Just select a time between the start (inclusive) and end (exclusive) of the target shift. Press Manual Report button.

ECL End-of-Shift Report Entry

936

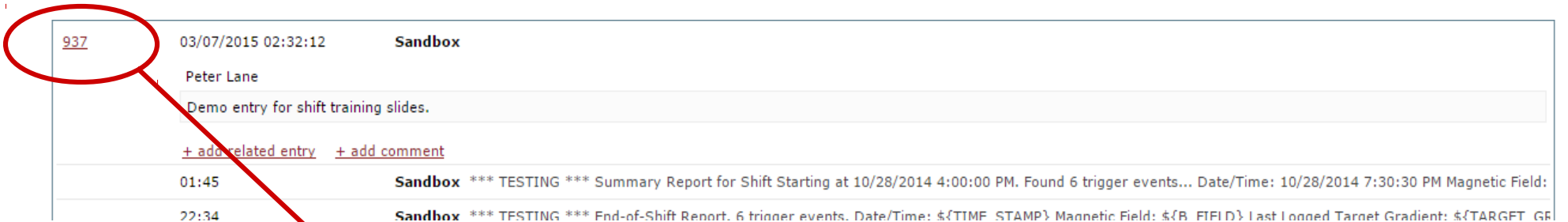
03/07/2015 01:45:54

Sandbox

```
*** TESTING *** Summary Report for Shift Starting at 10/28/2014 4:00:00 PM.  
Found 6 trigger events...  
  
Date/Time: 10/28/2014 7:30:30 PM  
Magnetic Field: 0.0  
Last Logged Target Gradient: 12.588919  
RF Frequency: 201.233620 MHz  
Event Type: Spark  
Trigger: Light  
Pulse #: 165389  
Peak Gradient: 12.588919 MV/m  
Log File: C:\Users\plane\Desktop\Data\runs-2014_11_21_16_00\runs\2014-10-28\Run_105\logfile_2014-10-28_Run_105.txt  
RF Decay Slope: 152913.807374  
  
Date/Time: 10/28/2014 7:31:42 PM  
Magnetic Field: 0.0  
Last Logged Target Gradient: 12.588919  
RF Frequency: 201.239121 MHz  
Event Type: Spark  
Trigger: Light  
Pulse #: 165569  
Peak Gradient: 11.832130 MV/m  
Log File: C:\Users\plane\Desktop\Data\runs-2014_11_21_16_00\runs\2014-10-28\Run_105\logfile_2014-10-28_Run_105.txt  
RF Decay Slope: 99856.335303  
  
Date/Time: 10/28/2014 7:34:33 PM
```

- Note: same entry ID as was in the Controls Log Monitor Last Entry ID box.

ECL Manual Shift Entry



<u>937</u>	03/07/2015 02:32:12	Sandbox	Peter Lane	Demo entry for shift training slides.	+ add related entry + add comment
01:45		Sandbox	*** TESTING ***	Summary Report for Shift Starting at 10/28/2014 4:00:00 PM. Found 6 trigger events... Date/Time: 10/28/2014 7:30:30 PM Magnetic Field:	
22:34		Sandbox	*** TESTING ***	End-of-Shift Report. 6 trigger events. Date/Time: \${TIME_STAMP} Magnetic Field: \${B_FIeld} Last Logged Target Gradient: \${TARGET GR	

- Click on ID of entries manually submitted during your shift.

Setting Related in Manual Entries

Entry #937 Sandbox 03/07/2015 02:32:12 Peter Lane (plane)

Demo entry for shift training slides.

[+ add related entry](#) [+ add comment](#)

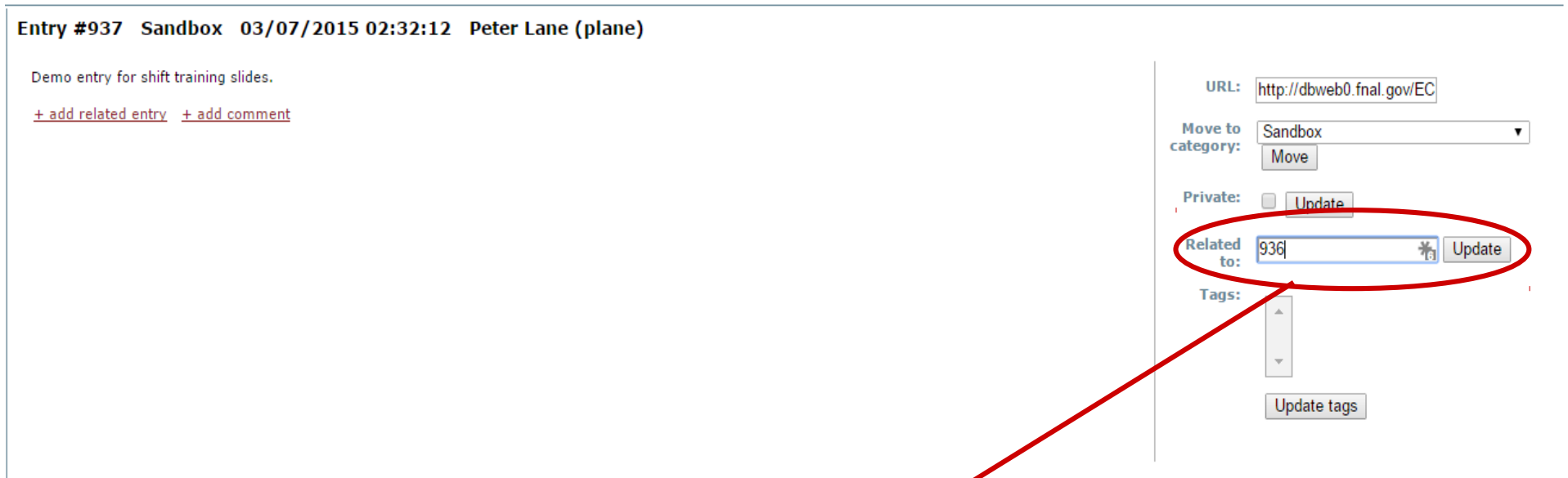
URL:

Move to category:

Private:

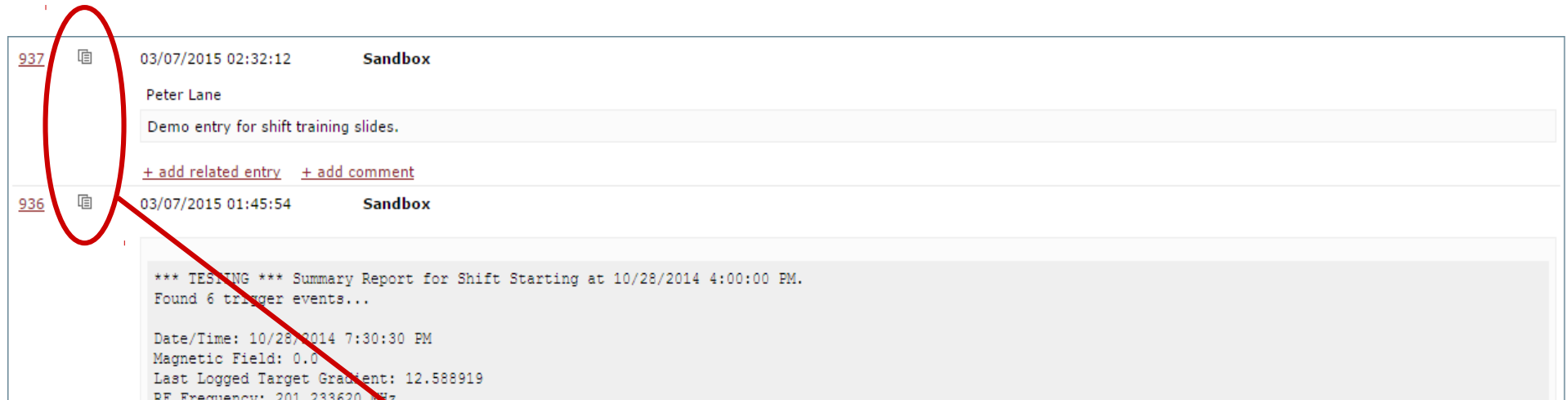
Related to:


Tags:




- Enter the ID of the automatic end-of-shift summary report and click Update.

Shift Entries Thread



937  03/07/2015 02:32:12 **Sandbox**
Peter Lane
Demo entry for shift training slides.
[+ add related entry](#) [+ add comment](#)

936  03/07/2015 01:45:54 **Sandbox**
*** TESTING *** Summary Report for Shift Starting at 10/28/2014 4:00:00 PM.
Found 6 trigger events...
Date/Time: 10/28/2014 7:30:30 PM
Magnetic Field: 0.0
Last Logged Target Gradient: 12.588919
RF Frequency: 201.233620 MHz

- Manual shift log entries are now all related to automatic end-of-shift summary.
- Click on any of the thread icons to see all related entries for your shift.

Help!

- Send me email (plane1@hawk.iit.edu) or call (x5555 or 773-988-4905) for help, complaints, or feature requests related to the ACNET Monitor or Controls Log Monitor.