



Towards new Graphical User Interfaces for nTOF experiment

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n_TOF

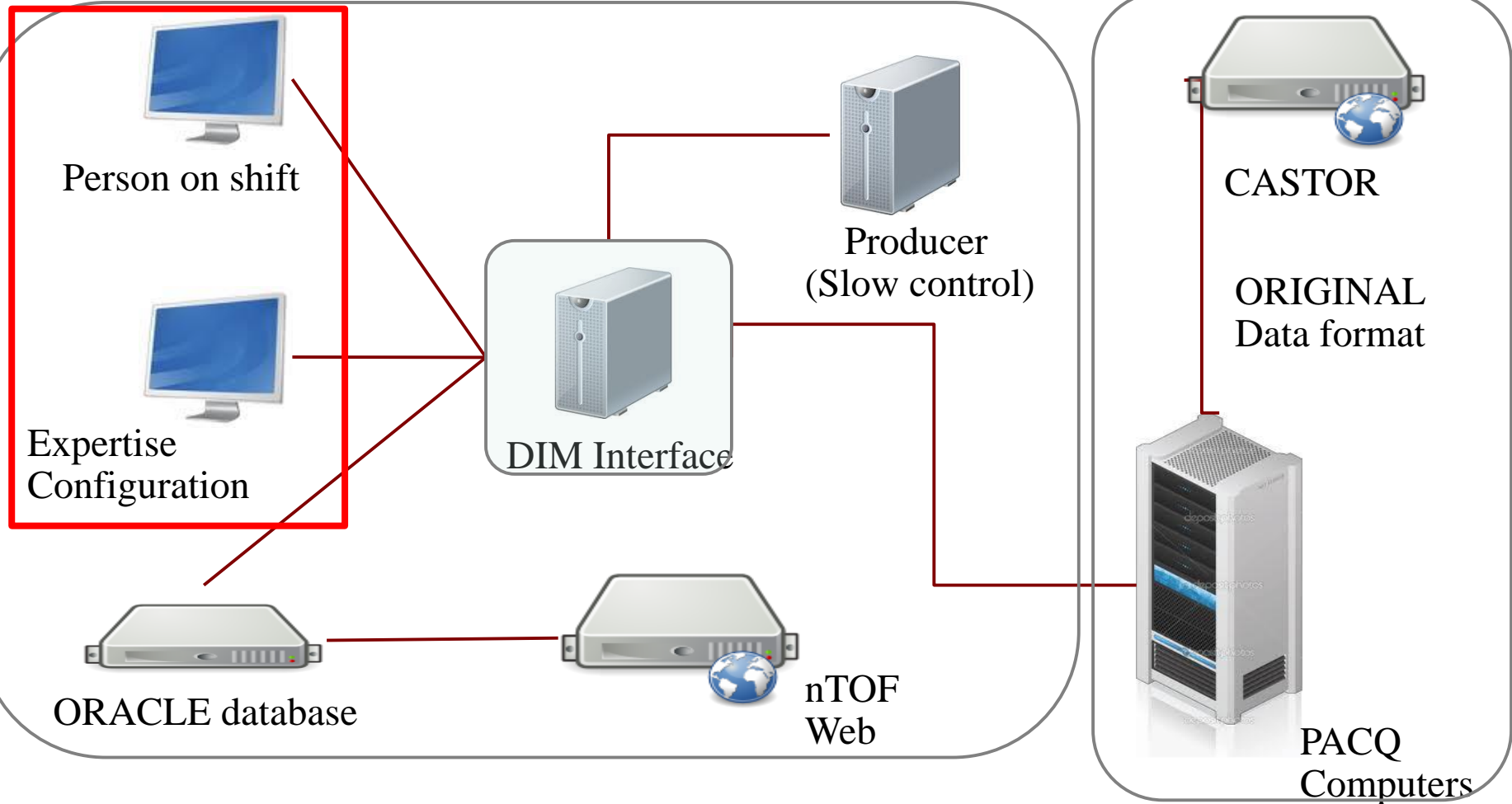


Towards new Graphical User Interfaces for nTOF experiment
Collaboration meeting, Bologna 28th Nov 2013

Agenda

- New Screen Configuration at nTOF Control Room.
- Basic Graphical User Interface (GUI) for the person on shift.
- Expert GUI for the experiment operator
- Renovated event Display

New GUI Concept at nTOF DAQ

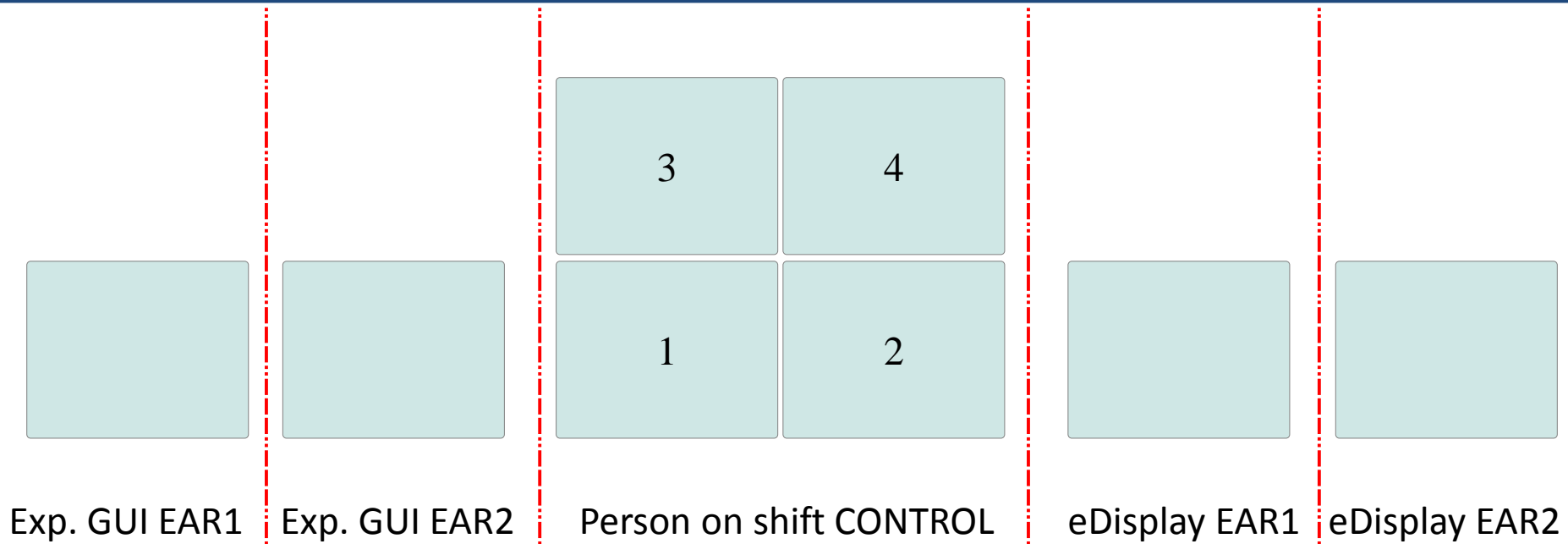


Starting up ...

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left shows a project named 'DIMJavaDemo' with a source folder 'src' containing several Java files, including 'DIMDemo.java'. The main editor window displays the code for 'DIMDemo.java', which is a Java class extending 'JFrame' and implementing 'DIMInfoListener'. A dialog box titled 'Input' is open, prompting the user to 'Please enter DIM DNS node' with the text 'nTOFDIM.cern.ch' entered in the input field. A blue text box is overlaid on the code editor, containing the text: 'Now the GUI is a client of nTOFDIM middleware. Advantages: The DAQ does not stop in case of GUI failure!'. The bottom of the IDE shows the 'Problems' and 'Console' tabs, with the console displaying the command: 'DIMDemo [Java Application] /usr/lib/jvm/java-1.7.0-openjdk-1.7.0.45.x86_64/bin/java (Nov 25, 2013 9:06:13 AM)'. The status bar at the bottom indicates 'Writable', 'Smart Insert', and '1 : 1'.

Now the GUI is a client of nTOFDIM middleware.
Advantages:
The DAQ does not stop in case of GUI failure!

Screen Configuration



Expert GUI EAR1: Navigate through the Expert GUI to control EAR1

Expert GUI EAR2: Navigate through the Expert GUI to control EAR2

CONTROL GUI - Screen 1: Navigate through the Vistar GUI for EAR1

Screen 2: Navigate through the Vistar GUI for EAR1

Screen 3: Web cam check the EAR1 and EAR2.

Common controls and alarms for both EAR1 and EAR2

Screen 4: Fixed VISTAR of the experiment parameters .

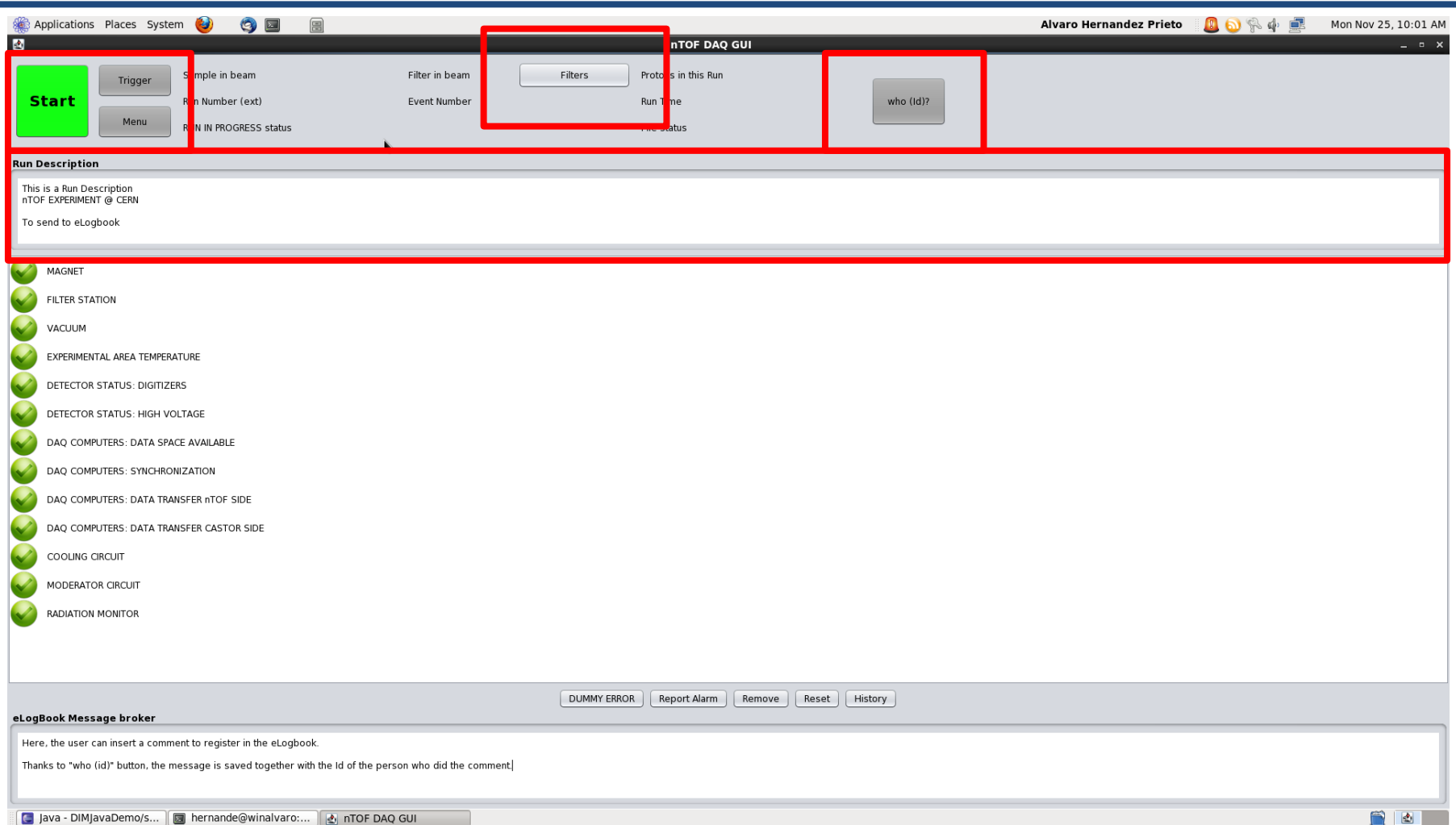
eDisplay EAR1: Separated eDisplay for current experiment in EAR1.

eDisplay EAR2: Separated eDisplay for current experiment in EAR2.

Person on shift GUI. Technical specs.

- Basic Control of the experiment during operation:
 - Start/Stop
 - Trigger type: Calibration/beam mode
 - Filters in beam definition
 - Run Description
 - Identify the person on shift
- Basic Information about experiment parameters
- User-friendly alarm console
- eLogbook message broker

Person on shift GUI. Basic Controls



Person on shift GUI. Basic Controls

The screenshot displays the nTOF DAQ GUI interface. A 'Filter Selection' dialog box is open in the foreground, featuring a table with columns 'Your wishes:' and 'Status:'. The table lists 10 filters, with 'Filter 9' selected. A red box highlights the dialog box, and a red arrow points from a 'Filters' button in the background to the dialog. The background GUI includes a 'Filters' button, a 'who (id)?' button, and a list of system status indicators such as 'DETECTOR STATUS: HIGH VOLTAGE', 'DAQ COMPUTERS: DATA SPACE AVAILABLE', and 'COOLING CIRCUIT'. At the bottom, there is an 'eLogBook Message broker' section with a text area and buttons for 'DUMMY ERROR', 'Report Alarm', 'Remove', 'Reset', and 'History'.

Your wishes:	Status:
<input type="checkbox"/> Filter 1	Info 1 HERE
<input type="checkbox"/> Filter 2	Info 2 HERE
<input type="checkbox"/> Filter 3	Info 3 HERE
<input type="checkbox"/> Filter 4	Info 4 HERE
<input type="checkbox"/> Filter 5	Info 5 HERE
<input type="checkbox"/> Filter 6	Info 6 HERE
<input type="checkbox"/> Filter 7	Info 7 HERE
<input type="checkbox"/> Filter 8	Info 8 HERE
<input checked="" type="checkbox"/> Filter 9	Info 9 HERE
<input type="checkbox"/> Filter 10	Info 10 HERE

Person on shift GUI. Information about experiment parameters

The screenshot shows the nTOF DAQ GUI interface. At the top, there is a menu bar with 'Applications', 'Places', and 'System'. The window title is 'nTOF DAQ GUI' and the user is 'Alvaro Hernandez Prieto'. The main interface includes a 'Start' button, 'Trigger', and 'Menu' buttons. A red box highlights a section containing: 'Sample in beam', 'Filter in beam', 'Filters', 'Protons in this Run', 'Run Number (ext)', 'Event Number', 'Run Time', 'RUN IN PROGRESS status', and 'File status'. There is also a 'who (id)?' button. Below this is a 'Run Description' section with text: 'This is a Run Description nTOF EXPERIMENT @ CERN To send to eLogbook'. A list of status indicators follows, each with a green circle icon: MAGNET, FILTER STATION, VACUUM, EXPERIMENTAL AREA TEMPERATURE, DETECTOR STATUS: DIGITIZERS, DETECTOR STATUS: HIGH VOLTAGE, DAQ COMPUTERS: DATA SPACE AVAILABLE, DAQ COMPUTERS: SYNCHRONIZATION, DAQ COMPUTERS: DATA TRANSFER nTOF SIDE, DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE, COOLING CIRCUIT, MODERATOR CIRCUIT, and RADIATION MONITOR. At the bottom, there is an 'eLogBook Message broker' section with buttons for 'DUMMY ERROR', 'Report Alarm', 'Remove', 'Reset', and 'History'. The text below reads: 'Here, the user can insert a comment to register in the eLogbook. Thanks to "who (id)" button, the message is saved together with the Id of the person who did the comment.'

Person on shift GUI. User-friendly alarm console

The screenshot displays the nTOF DAQ GUI interface. At the top, there is a menu bar with 'Applications', 'Places', and 'System'. The window title is 'nTOF DAQ GUI' and the user is 'Alvaro Hernandez Prieto'. The main interface includes a 'Start' button, a 'Trigger' button, and a 'Menu' button. There are several status indicators: 'Sample in beam', 'Filter in beam', 'Protons in this Run', 'Run Number (ext)', 'Event Number', 'Run Time', and 'File status'. A 'who (id)?' button is also present. Below these is a 'Run Description' section with a text area containing: 'This is a Run Description nTOF EXPERIMENT @ CERN To send to eLogbook'. A large red box highlights a list of alarm categories, each with a green circular icon: MAGNET, FILTER STATION, VACUUM, EXPERIMENTAL AREA TEMPERATURE, DETECTOR STATUS: DIGITIZERS, DETECTOR STATUS: HIGH VOLTAGE, DAQ COMPUTERS: DATA SPACE AVAILABLE, DAQ COMPUTERS: SYNCHRONIZATION, DAQ COMPUTERS: DATA TRANSFER nTOF SIDE, DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE, COOLING CIRCUIT, MODERATOR CIRCUIT, and RADIATION MONITOR. At the bottom of this list are buttons for 'DUMMY ERROR', 'Report Alarm', 'Remove', 'Reset', and 'History'. Below the red box is an 'eLogbook Message broker' section with a text area containing: 'Here, the user can insert a comment to register in the eLogbook. Thanks to "who (id)" button, the message is saved together with the Id of the person who did the comment.' The taskbar at the bottom shows several open windows: 'java - DIMJavaDemo/s...', 'hernande@winalvaro:...', and 'nTOF DAQ GUI'.

Person on shift GUI.

User-friendly alarm console

The screenshot displays the nTOF DAQ GUI interface. At the top, the window title is "nTOF DAQ GUI" and the user is identified as "Alvaro Hernandez Prieto". The interface includes a "Start" button, a "Trigger" button, and a "Menu" button. Below these are several status indicators: "Sample in beam", "Filter in beam", "Protons in this Run", "Run Number (ext)", "Event Number", "Run Time", and "RUN IN PROGRESS status". A "Filters" button is also present. A "who (id)?" button is located on the right side.

The "Run Description" section contains the text: "This is a Run Description nTOF EXPERIMENT @ CERN To send to eLogbook".

The alarm console is highlighted with a red border and contains a list of status indicators, each with a green circle icon:

- MAGNET WARNING!!!!
- FILTER STATION
- VACUUM
- EXPERIMENTAL AREA TEMPERATURE
- DETECTOR STATUS: DIGITIZERS
- DETECTOR STATUS: HIGH VOLTAGE
- DAQ COMPUTERS: DATA SPACE AVAILABLE
- DAQ COMPUTERS: SYNCHRONIZATION
- DAQ COMPUTERS: DATA TRANSFER nTOF SIDE
- DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE
- COOLING CIRCUIT
- MODERATOR CIRCUIT
- RADIATION MONITOR

At the bottom of the alarm console, there are buttons for "DUMMY ERROR", "Report Alarm", "Remove", "Reset", and "History".

The "eLogbook Message broker" section contains the text: "Here, the user can insert a comment to register in the eLogbook. Thanks to 'who (id)?' button, the message is saved together with the Id of the person who did the comment."

The taskbar at the bottom shows several open windows: "Java - DIMJavaDemo/s...", "hernande@winalvaro:...", "nTOF DAQ GUI", and "Pictures - File Browser".

Person on shift GUI. User-friendly alarm console

The screenshot displays the nTOF DAQ GUI interface. At the top, the window title is "nTOF DAQ GUI" and the user is identified as "Alvaro Hernandez Prieto" on "Mon Nov 25, 10:03 AM". The main interface includes a "Start" button, a "Trigger" button, and a "Menu" button. Below these are several status indicators: "Sample in beam", "Filter in beam", "Protons in this Run", "Event Number", "Run Time", and "File status". A "who (id)?" button is also present.

The "Run Description" section contains the text: "This is a Run Description nTOF EXPERIMENT @ CERN To send to eLogbook".

A red box highlights the "MAGNET WARNING!!!!" section, which lists various system components with green status indicators:

- FILTER STATION
- VACUUM
- EXPERIMENTAL AREA TEMPERATURE
- DETECTOR STATUS: DIGITIZERS
- DETECTOR STATUS: HIGH VOLTAGE
- DAQ COMPUTERS: DATA SPACE AVAILABLE
- DAQ COMPUTERS: SYNCHRONIZATION
- DAQ COMPUTERS: DATA TRANSFER nTOF SIDE
- DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE
- COOLING CIRCUIT
- MODERATOR CIRCUIT
- RADIATION MONITOR

A "Magnet Status" dialog box is open, showing "Magnet Information" with the following details:

Magnet Status	Ok (example)
Magnet Intensity	600 mA (example)

The dialog box has an "EXIT" button at the bottom.

At the bottom of the GUI, there are buttons for "DUMMY ERROR", "Report Alarm", "Remove", "Reset", and "History".

The "eLogbook Message broker" section at the bottom contains the text: "Here, the user can insert a comment to register in the eLogbook. Thanks to 'who (id)?' button, the message is saved together with the Id of the person who did the comment."

Person on shift GUI. User-friendly alarm console

Applications Places System Alvaro Hernandez Prieto Mon Nov 25, 10:03 AM

nTOF DAQ GUI

Start Trigger Sample in beam Filter in beam Filters Protons in this Run
Menu Run Number (ext) Event Number Run Time who (Id)?
RUN IN PROGRESS status File status

Run Description

This is a Run Description
nTOF EXPERIMENT @ CERN
To send to eLogbook

Alarm Console (Red Boxed Area):

- MAGNET
- FILTER STATION ERROR. SOMETHING BAD NOW !!!!!
- VACUUM
- EXPERIMENTAL AREA TEMPERATURE
- DETECTOR STATUS: DIGITIZERS
- DETECTOR STATUS: HIGH VOLTAGE
- DAQ COMPUTERS: DATA SPACE AVAILABLE
- DAQ COMPUTERS: SYNCHRONIZATION
- DAQ COMPUTERS: DATA TRANSFER nTOF SIDE
- DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE
- COOLING CIRCUIT
- MODERATOR CIRCUIT
- RADIATION MONITOR

DUMMY ERROR Report Alarm Remove Reset History

eLogbook Message broker

Here, the user can insert a comment to register in the eLogbook.
Thanks to "who (id)" button, the message is saved together with the Id of the person who did the comment.

java - DIMJavaDemo/s... hernande@winalvaro:... nTOF DAQ GUI Pictures - File Browser

Person on shift GUI. User-friendly alarm console

The screenshot displays the nTOF DAQ GUI interface. At the top, the window title is "nTOF DAQ GUI" and the user is identified as "Alvaro Hernandez Prieto" on "Mon Nov 25, 10:04 AM". The main interface includes a "Start" button, a "Trigger" button, and a "Menu" button. Below these are several status indicators: "Sample in beam", "Filter in beam", "Protons in this Run", "Event Number", "Run Time", and "File status". A "who (id)?" button is also present. The "Run Description" section contains text: "This is a Run Description nTOF EXPERIMENT @ CERN To send to eLogbook". A red box highlights a "FILTER STATION ERROR: SOMETHING BAD NOW !!!!!" message. A "Filter Selection" dialog box is open, showing a list of filters (Filter 1 to Filter 10) with checkboxes and a "Status:" column. The dialog also includes an "EXIT" button. At the bottom of the GUI, there are buttons for "DUMMY ERROR", "Report Alarm", "Remove", "Reset", and "History". The "eLogbook Message broker" section at the bottom provides instructions on how to insert a comment in the eLogbook.

Applications Places System Alvaro Hernandez Prieto Mon Nov 25, 10:04 AM

nTOF DAQ GUI

Start Trigger Sample in beam Filter in beam Filters Protons in this Run
Menu Run Number (ext) Event Number Run Time who (id)?
RUN IN PROGRESS status File status

Run Description

This is a Run Description
nTOF EXPERIMENT @ CERN
To send to eLogbook

Filter Selection

Your wishes: Status:

<input type="checkbox"/> Filter 1	Info 1 HERE
<input type="checkbox"/> Filter 2	Info 2 HERE
<input type="checkbox"/> Filter 3	Info 3 HERE
<input type="checkbox"/> Filter 4	Info 4 HERE
<input type="checkbox"/> Filter 5	Info 5 HERE
<input type="checkbox"/> Filter 6	Info 6 HERE
<input type="checkbox"/> Filter 7	Info 7 HERE
<input type="checkbox"/> Filter 8	Info 8 HERE
<input type="checkbox"/> Filter 9	Info 9 HERE
<input type="checkbox"/> Filter 10	Info 10 HERE

EXIT

DUMMY ERROR Report Alarm Remove Reset History

eLogbook Message broker

Here, the user can insert a comment to register in the eLogbook.
Thanks to "who (id)" button, the message is saved together with the Id of the person who did the comment.

java - DIMJavaDemo/s... hernande@winalvaro... nTOF DAQ GUI Pictures - File Browser

Person on shift GUI. User-friendly alarm console

Applications Places System Alvaro Hernandez Prieto Mon Nov 25, 10:05 AM

nTOF DAQ GUI

Start Trigger Sample in beam Filter in beam Filters Protons in this Run
Menu Run Number (ext) Event Number Run Time who (Id)?
RUN IN PROGRESS status File status

Run Description

This is a Run Description
nTOF EXPERIMENT @ CERN
To send to eLogbook

Alarm Console

- MAGNET
- FILTER STATION
- VACUUM WARNING!!!!**
- EXPERIMENTAL AREA TEMPERATURE
- DETECTOR STATUS: DIGITIZERS
- DETECTOR STATUS: HIGH VOLTAGE
- DAQ COMPUTERS: DATA SPACE AVAILABLE
- DAQ COMPUTERS: SYNCHRONIZATION
- DAQ COMPUTERS: DATA TRANSFER nTOF SIDE
- DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE
- COOLING CIRCUIT
- MODERATOR CIRCUIT
- RADIATION MONITOR

DUMMY ERROR Report Alarm Remove Reset History

eLogbook Message broker

Here, the user can insert a comment to register in the eLogbook.
Thanks to "who (id)" button, the message is saved together with the Id of the person who did the comment.

Taskbar: Java - DIMJavaDemo/s... hernande@winalvaro:... nTOF DAQ GUI [Pictures - File Browser]

Person on shift GUI. User-friendly alarm console

The screenshot displays the nTOF DAQ GUI interface. At the top, there are menu items (Applications, Places, System) and a user profile (Alvaro Hernandez Prieto) with the date and time (Mon Nov 25, 10:05 AM). The main interface includes a 'Start' button, a 'Trigger' button, and several status indicators: 'Sample in beam', 'Filter in beam', 'Protons in this Run', 'Run Number (ext)', 'Event Number', 'Run Time', and 'File status'. A 'Menu' button is also present. Below these is a 'Run Description' section with a text area and a 'To send to eLogbook' button. A red box highlights a list of system components, each with a green status icon: MAGNET, FILTER STATION, VACUUM WARNING!!!! (with a yellow warning triangle), EXPERIMENTAL AREA TEMPERATURE, DETECTOR STATUS: DIGITIZERS, DETECTOR STATUS: HIGH VOLTAGE, DAQ COMPUTERS: DATA SPACE AVAILABLE, DAQ COMPUTERS: SYNCHRONIZATION, DAQ COMPUTERS: DATA TRANSFER nTOF SIDE, DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE, COOLING CIRCUIT, MODERATOR CIRCUIT, and RADIATION MONITOR. A modal dialog box titled 'Vacuum Status EAR1' is open, showing a table of vacuum information with columns for component names and their current values (all 'Value here'). The dialog has an 'EXIT' button at the bottom. Below the list, there are buttons for 'DUMMY ERROR', 'Report Alarm', 'Remove', 'Reset', and 'History'. At the bottom, there is an 'eLogbook Message broker' section with instructions on how to use the 'who (id)?' button to save messages.

Applications Places System Alvaro Hernandez Prieto Mon Nov 25, 10:05 AM

nTOF DAQ GUI

Start Trigger Sample in beam Filter in beam Filters Protons in this Run
Menu Run Number (ext) Event Number Run Time who (id)?
RUN IN PROGRESS status File status

Run Description

This is a Run Description
nTOF EXPERIMENT @ CERN
To send to eLogbook

MAGNET
FILTER STATION
VACUUM WARNING!!!!
EXPERIMENTAL AREA TEMPERATURE
DETECTOR STATUS: DIGITIZERS
DETECTOR STATUS: HIGH VOLTAGE
DAQ COMPUTERS: DATA SPACE AVAILABLE
DAQ COMPUTERS: SYNCHRONIZATION
DAQ COMPUTERS: DATA TRANSFER nTOF SIDE
DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE
COOLING CIRCUIT
MODERATOR CIRCUIT
RADIATION MONITOR

Vacuum Status EAR1

Vacuum Information

VAC_TOF_VGR_1	Value here
VAC_TOF_VGR_1A	Value here
VAC_TOF_VGR_2	Value here
VAC_TOF_VGR_2A	Value here
VAC_TOF_VGR_3	Value here
VAC_TOF_VGR_3A	Value here
VAC_TOF_VGR_4	Value here
VAC_TOF_VGR_4A	Value here

EXIT

DUMMY ERROR Report Alarm Remove Reset History

eLogbook Message broker

Here, the user can insert a comment to register in the eLogbook.
Thanks to "who (id)" button, the message is saved together with the Id of the person who did the comment.

Java - DIMJavaDemo/s... hernande@winalvaro:... nTOF DAQ GUI [Pictures - File Browser]

Person on shift GUI. eLogbook message broker

The screenshot shows a Linux desktop environment with a window titled "nTOF DAQ GUI" by Alvaro Hernandez Prieto. The window contains several control panels:

- Control Panel:** Includes a large green "Start" button, a "Trigger" button, and a "Menu" button. It also features several status indicators: "Sample in beam", "Filter in beam", "Protons in this Run", "Run Number (ext)", "Event Number", "Run Time", and "File status". A "who (id)?" button is also present.
- Run Description:** A text area containing the text: "This is a Run Description nTOF EXPERIMENT @ CERN To send to eLogbook".
- System Status List:** A vertical list of system components, each with a green circular indicator: MAGNET, FILTER STATION, VACUUM, EXPERIMENTAL AREA TEMPERATURE, DETECTOR STATUS: DIGITIZERS, DETECTOR STATUS: HIGH VOLTAGE, DAQ COMPUTERS: DATA SPACE AVAILABLE, DAQ COMPUTERS: SYNCHRONIZATION, DAQ COMPUTERS: DATA TRANSFER nTOF SIDE, DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE, COOLING CIRCUIT, MODERATOR CIRCUIT, and RADIATION MONITOR.
- eLogBook Message broker:** A section at the bottom, highlighted with a red border, containing the text: "Here, the user can insert a comment to register in the eLogbook. Thanks to 'who (id)?' button, the message is saved together with the Id of the person who did the comment|".

The desktop taskbar at the bottom shows several open applications: "Java - DIMJavaDemo/s...", "hernande@winalvaro:...", and "nTOF DAQ GUI". The system tray on the right shows the date and time: "Mon Nov 25, 10:01 AM".

Person on shift GUI

The screenshot shows a Linux desktop environment with a window titled "nTOF DAQ GUI" by Alvaro Hernandez Prieto. The window contains several control panels:

- Control Panel:** A "Start" button (green), a "Trigger" button, and a "Menu" button. It also displays "Sample in beam", "Filter in beam", "Protons in this Run", "Run Number (ext)", "Event Number", "Run Time", and "File status". A "Filters" button is located between "Filter in beam" and "Protons in this Run". A "who (id)?" button is on the right.
- Run Description:** A text area containing: "This is a Run Description", "nTOF EXPERIMENT @ CERN", and "To send to eLogbook".
- System Status List:** A vertical list of 14 items, each with a green circular indicator: MAGNET, FILTER STATION, VACUUM, EXPERIMENTAL AREA TEMPERATURE, DETECTOR STATUS: DIGITIZERS, DETECTOR STATUS: HIGH VOLTAGE, DAQ COMPUTERS: DATA SPACE AVAILABLE, DAQ COMPUTERS: SYNCHRONIZATION, DAQ COMPUTERS: DATA TRANSFER nTOF SIDE, DAQ COMPUTERS: DATA TRANSFER CASTOR SIDE, COOLING CIRCUIT, MODERATOR CIRCUIT, and RADIATION MONITOR.
- eLogBook Message broker:** A panel with buttons for "DUMMY ERROR", "Report Alarm", "Remove", "Reset", and "History". Below the buttons is a text area with instructions: "Here, the user can insert a comment to register in the eLogbook." and "Thanks to 'who (id)?' button, the message is saved together with the Id of the person who did the comment|".

The window title bar shows the user name "Alvaro Hernandez Prieto" and the date/time "Mon Nov 25, 10:01 AM". The taskbar at the bottom shows several open windows, including "nTOF DAQ GUI".

Screen 3 (layout): Common Control GUI

Dedicated web cam for EAR1
Access zone

Dedicated web cam for EAR2
Access zone

Dedicated web cam for EAR1
Experimental zone

Dedicated web cam for EAR2
Experimental zone

Common EAR1 & EAR2 CONTROL

Master START/STOP

Total Protons:

Beam
request

PS Monitor (Beam request and status)

Event: 

Cooling
Station

Radiation
Monitor

Screen 4 (layout): Fixed VISTAR of the experiment parameters

PSB Fixdisplay - W 48

25-Nov-2013 12:47:09

Comments (22-Nov-2013 18:41:21)

Supervisor : K.Hanke
Operator : 76671

Long arret technique jusque Mai 2014
**A bientot sur notre
accelerateur a la pointe**

BP	User	Pls	Inj.	Acc.	b.Ej.E10	Ej.E10	Dest.
4	---zero---	24	?? ??	?? ??			
5	SFTPRO	8	?? ??	?? ??			
6	---zero---	24	?? ??	?? ??			
7	SFTPRO	8	?? ??	?? ??			
8	---zero---	24	?? ??	?? ??			
9	SFTPRO	8	?? ??	?? ??			
10	---zero---	24	?? ??	?? ??			
11	SFTPRO	8	?? ??	?? ??			
12	---zero---	24	?? ??	?? ??			
13	LHCPROBE	11	?? ??	?? ??			
14	---zero---	24	?? ??	?? ??			
16	---zero---	24					BDUMP
	SFTPRO						BDUMP

16/25 BR1INJ: Cannot start monitoring on BR1.BCT/HotspotIntensity (Server 'BC

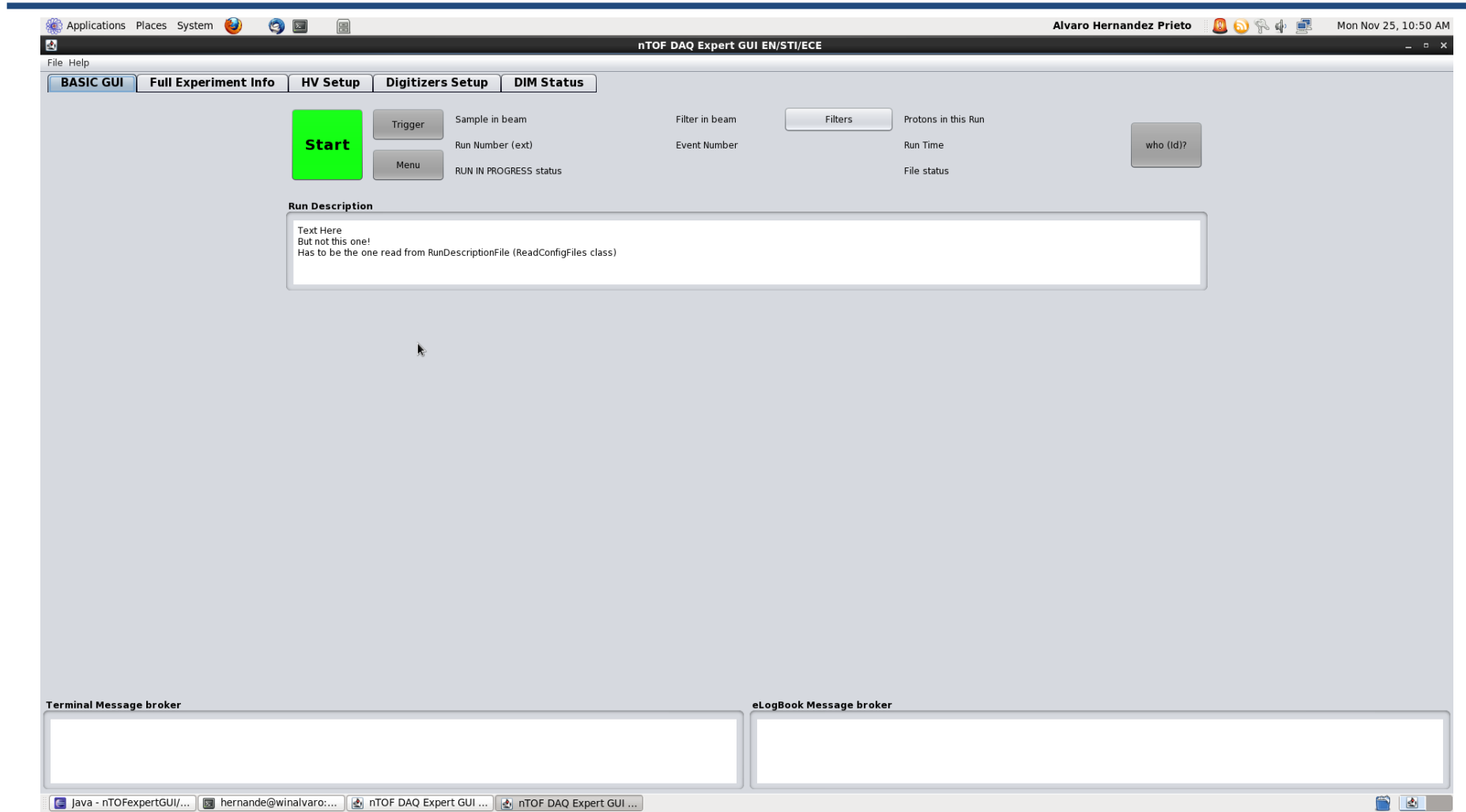
EAR 1
VISTAR MODE
Slow Parameters

EAR 2
VISTAR MODE
Slow Parameters

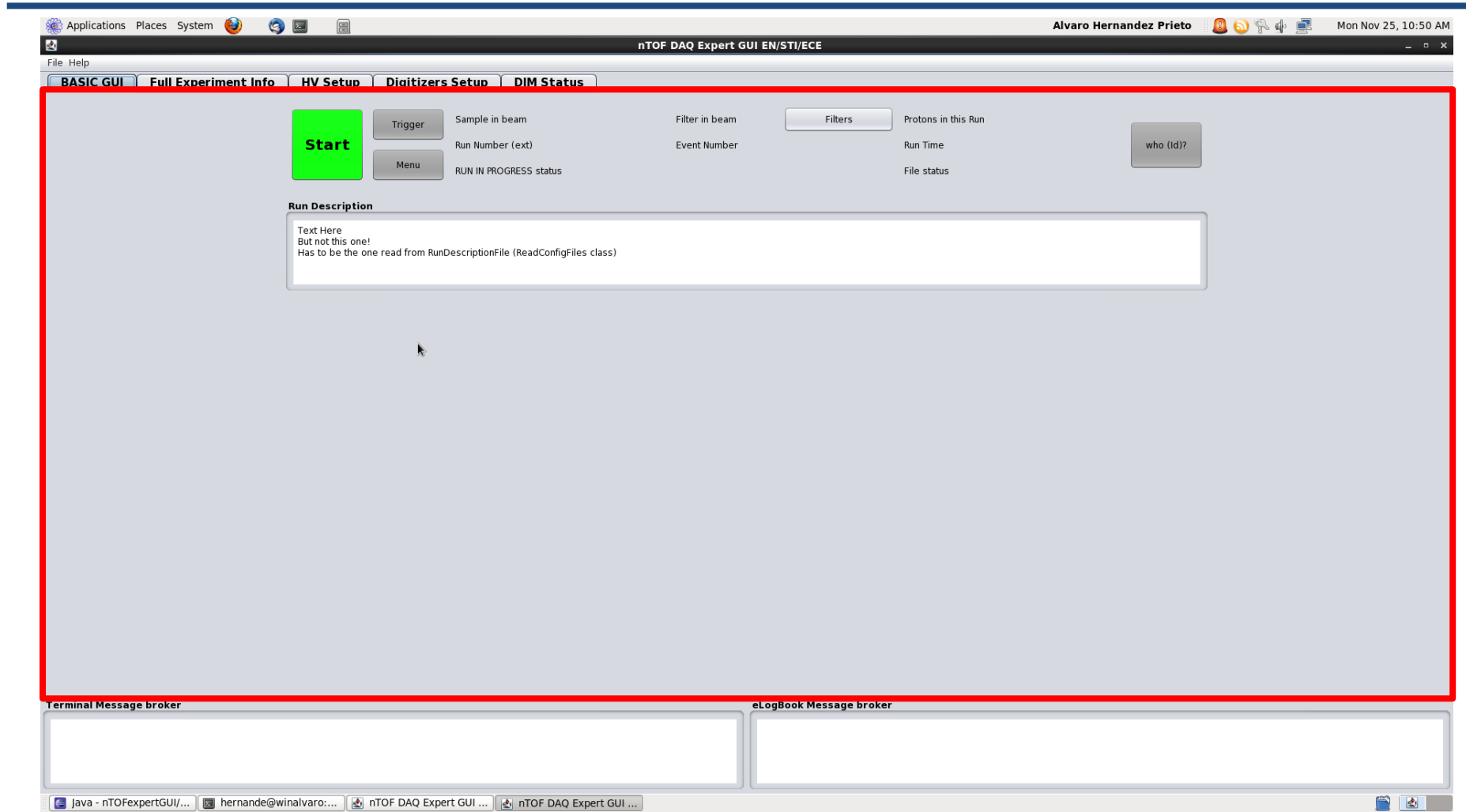
Expert GUI. Technical specs.

- Different labels allow the operator to navigate through different controls in the experiment.
- Full information label shows the operator the info of the experiment.
- HV label to control the voltage values.
- Channels configuration label.
- DIM status to see how the DIM middleware is working.
- Renovated eDisplay to show real time data.

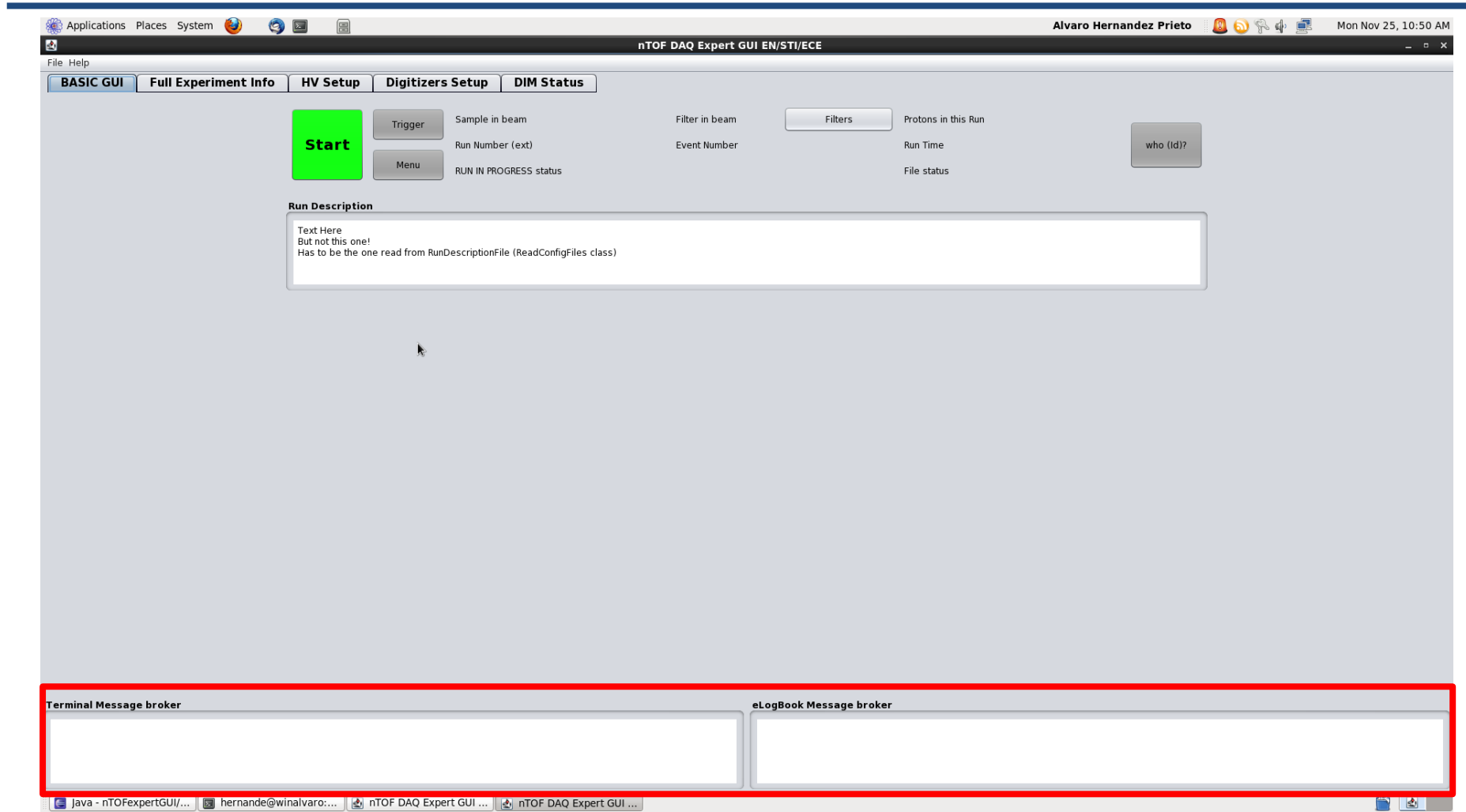
Expert GUI. User vista



Expert GUI. User vista



Expert GUI. User vista



Expert GUI. Full Info Vista

Applications Places System Alvaro Hernandez Prieto Mon Nov 25, 11:16 AM

nTOF DAQ Expert GUI EN/ST/ECE

File Help

BASIC GUI Full Experiment Info HV Setup Digitizers Setup DIM Status

ALARM CONSOLE EAR1

Magnet	HISTO
Experimental area Temperature	HISTO
Vacuum 1	HISTO
Vacuum N	HISTO
Cooling Station 1	HISTO
Cooling Station N	HISTO
Radiation 1	HISTO
Radiation N	HISTO
TUNNEL	

KB	MB	Tot. size:	Free space:
19MB	144MB	300GB	300GB
29MB	226MB	298GB	298GB
30MB	214MB	224GB	224GB
0B	0B	341GB	341GB
28MB	205MB	298GB	298GB
27MB	199MB	220GB	220GB
27MB	199MB	314GB	314GB

DATA TRANSFER ADC-DAQ Com DAQ Com-CASTOR

FTMG 1: 0B
FTMG 2: 0B
FTMG 3: 0B
FTMG 4: 0B
FTMG 5: 0B
FTMG 6: 0B
FTMG 7: 0B
FTMG 8: 0B
BAE2 17: 2503kB
BAE2 18: 2405kB
BAE2 19: 3MB
BAE2 20: 6MB
BAE2 21: 3MB
BAE2 22: 4MB
BAE2 23: 3MB
BAE2 24: 4MB
BAE2 9: 3MB
BAE2 10: 2440kB
BAE2 11: 2650kB
BAE2 12: 6MB
BAE2 13: 5MB
BAE2 14: 5MB
BAE2 15: 1722kB
BAE2 16: 2271kB

B1 test B2 test

Terminal Message broker eLogBook Message broker

java - nTOFExpertGUI/... Pictures - File Browser [nTOF DAQ Expert GUI... nTOF DAQ Expert GUI ...

Expert GUI. HV Configuration

The screenshot shows the 'nTOF DAQ Expert GUI EN/STI/ECE' window. The 'BASIC GUI' tab is selected. Three buttons are circled in red: 'BASIC GUI', 'History', and 'Send.'. Below the buttons is a table with columns: Ch. Name, V0 Set, Vmon, I0Set, Imon, RDwn, Rup, Pw, Status, and Group. The table contains 14 rows of data for detectors Det1 and Det2.

Ch. Name	V0 Set	Vmon	I0Set	Imon	RDwn	Rup	Pw	Status	Group	
Det1	1000	999.65	1000	999.65	1	50.5	50.5	ON	OK	0.01
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02
Det2	2000	1999.65	2000	1999.65	1	50.5	50.5	OFF	FAILURE	0.02

Expert GUI. Channel configuration

The screenshot shows the 'nTOF DAQ Expert GUI EN/ST/ECE' window. The 'BASIC GUI' tab is active. Below the tabs are four buttons: 'History', 'Send', 'Calibration', and 'Event Display (Oscilloscope Mode)', all of which are circled in red. Below these buttons is a table with the following data:

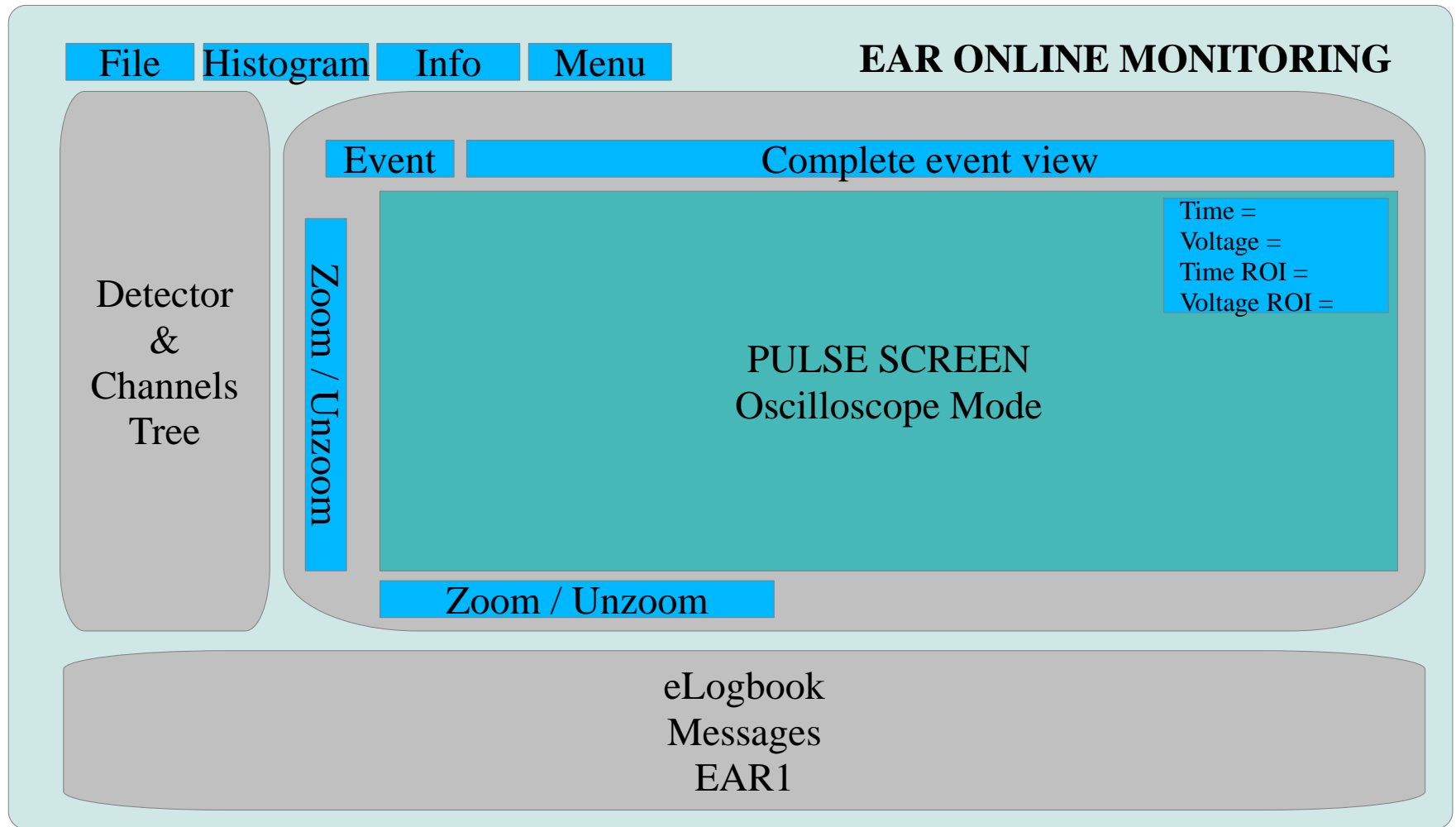
HostPC	Module	Channel	Det	IN	GainScale	LowerLimit(mV)	Threshold	Sign	PRE	POST	MS/s	ms	Delay	ADCType	Use
pf19	1	1	1	21	2.0	100.0	211.5	+	512	1024	3.2	73.5	100.0	Acquis	YES
pf19	1	2	1	22	2.0	100.0	211.5	+	512	1024	3.2	73.5	100.0	Acquis	YES
pf19	1	3	1	23	2.0	100.0	211.5	+	512	1024	3.2	73.5	100.0	Acquis	YES
pf19	1	4	1	24	2.0	100.0	211.5	+	512	1024	3.2	73.5	100.0	Acquis	YES

At the bottom of the window, there are two message broker panels: 'Terminal Message broker' and 'eLogBook Message broker', both currently empty.

Event display. Ideas

- It will be available in two different versions:
 - As a widget of the expert GUI (by pressing the button in the channel configuration label)
 - As an independent application for the data analysis in real time in a dedicated screens for both experimental areas.
- Allow the user to check the acquired data in real time.

Event display (layout)





Thanks for your attention!

n_TOF



Towards new Graphical User Interfaces for nTOF experiment
Collaboration meeting, Bologna 28th Nov 2013