

CALIBRATIONS WITH EXTERNAL GENERATOR

TIME CALIBRATION (TC) WITH THE ORTEC GENERATOR

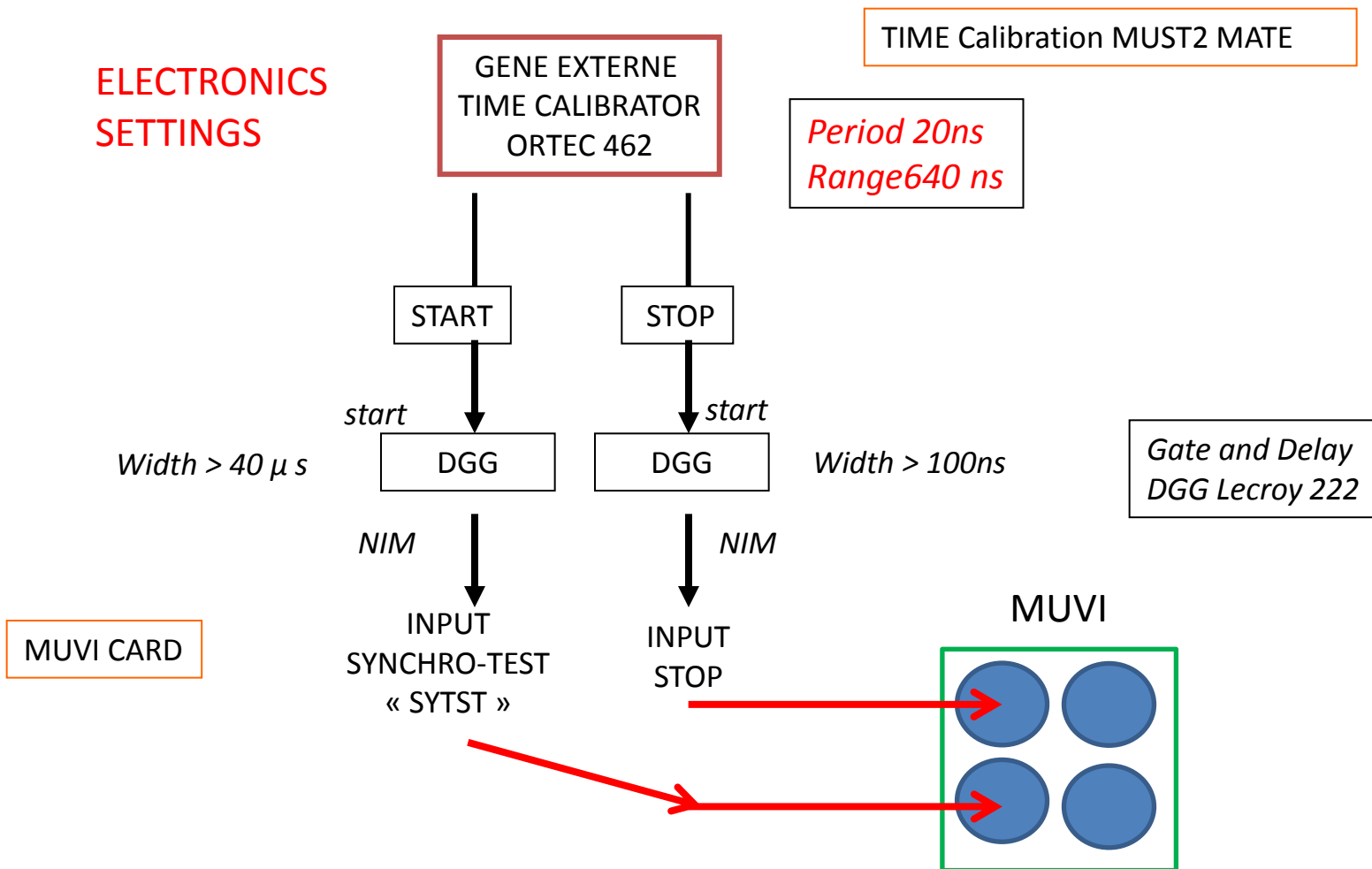
Configuration DAS – CALIMERO STEPS:

- I **Low and High voltages ON on MUST2** ; T°-4C
- II Connect the Time Calibrator (slide 2)
- III Exit from the experiment run control e** : acqmenu::
Type TK then KALL in the Menu then return (twice)
Launch again: **RC**
- IV **Run Control with MUST2 stand-alone**
- IV **DAS configuration** correctly set for CALIMERO, GMT with only MM triggers
- V Be sure that the MUVI configuration is correct

BT ON , HT ON telescopes DSSD

Check that the Time calibrator is ON !!

ELECTRONICS SETTINGS



RUN CONTROL

Run Control RC

select the configuration .xml corresponding to the Must2 « stand alone » mode:
OPEN in the MENU « File » of the NARVAL window of Run control

Select **e6**Muvi.xml**

WAIT

In the Menu select Mode : change from Editing to **Monitoring** Mode

Click on **INIT** → all actors should have « blue » frame

Then it will be ready to start once the DAS is correctly set.

Check the double Path for the storage:

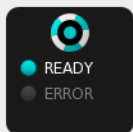
/data/e6**X/e6**/acquisition/run/

/media/USBDISK/e6**/run

RUN
CONTROL



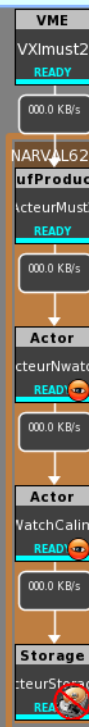
oring mode



e628



Init Start Stop Exit



Messages

Date	Level	Logger	Message
	INFO	ALL	Filter
11/03/2014 10:09:13	INFO	rcc	configuration saved in /home/e628/ganacq_manip/e628/e628_Muvi.xml
11/03/2014 10:07:42	ERROR	vme	OUTPUT on ganlx14 : SBUF - - TcpWrite()
11/03/2014 10:07:41	INFO	rcc	finished execution of STOP
11/03/2014 10:07:19	INFO	rcc	received STOP
11/03/2014 10:06:44	INFO	rcc	finished execution of START
11/03/2014 10:06:41	INFO	vme	OUTPUT on ganlx14 : SBUF - Tape Server connected -
11/03/2014 10:06:40	INFO	rcc	received START
11/03/2014 10:06:18	ERROR	vme	OUTPUT on ganlx14 : SBUF - - TcpWrite()
11/03/2014 10:06:13	INFO	rcc	finished execution of STOP
11/03/2014 10:06:01	INFO	rcc	received STOP
11/03/2014 10:04:09	INFO	rcc	finished execution of START
11/03/2014 10:04:07	INFO	rcc	received START
11/03/2014 10:04:07	INFO	vme	OUTPUT on ganlx14 : SBUF - Tape Server connected -

GMT TRIGGERS

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Online e628

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganlx14 Add Module Delete Module Move module Change CPU

INSPECTION GMT CENTRUM MUVI ADC U2M

[GMT Slot(2), Type(GMT)]

User Interface Generic Interface Parameters

Input Channel

1 : MM1	<input checked="" type="checkbox"/>	NIM
2 : MM2	<input checked="" type="checkbox"/>	NIM
3 : MM3	<input checked="" type="checkbox"/>	NIM
4 : MM4	<input checked="" type="checkbox"/>	NIM
5 : Cats1div	<input type="checkbox"/>	NIM
6 : Cats2div	<input type="checkbox"/>	NIM
7 : TIARA	<input type="checkbox"/>	NIM
8 : CHARISSAdiv	<input type="checkbox"/>	NIM
9 : EXOGAMdiv	<input type="checkbox"/>	NIM
10 : GMT_10	<input type="checkbox"/>	NIM
11 : Hyball	<input type="checkbox"/>	NIM
12 : Barrel	<input type="checkbox"/>	NIM
13 : GMT_13	<input type="checkbox"/>	NIM
14 : GMT_14	<input type="checkbox"/>	NIM
15 : GMT_15	<input type="checkbox"/>	NIM
16 : GMT_16	<input type="checkbox"/>	NIM
MTI	<input type="checkbox"/>	NIM

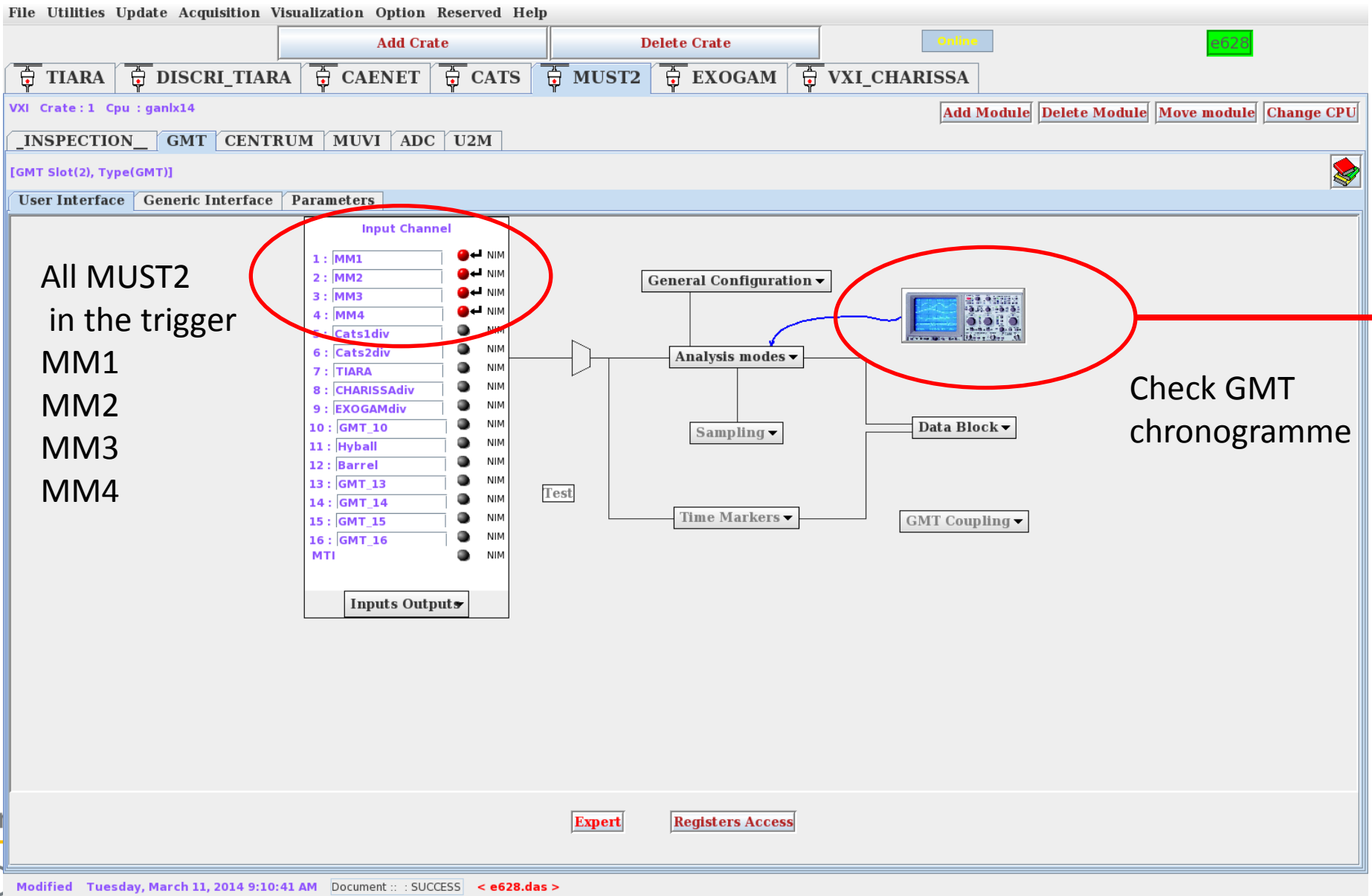
Inputs Outputs

General Configuration Analysis modes Sampling Time Markers Data Block GMT Coupling

Test

Expert Registers Access

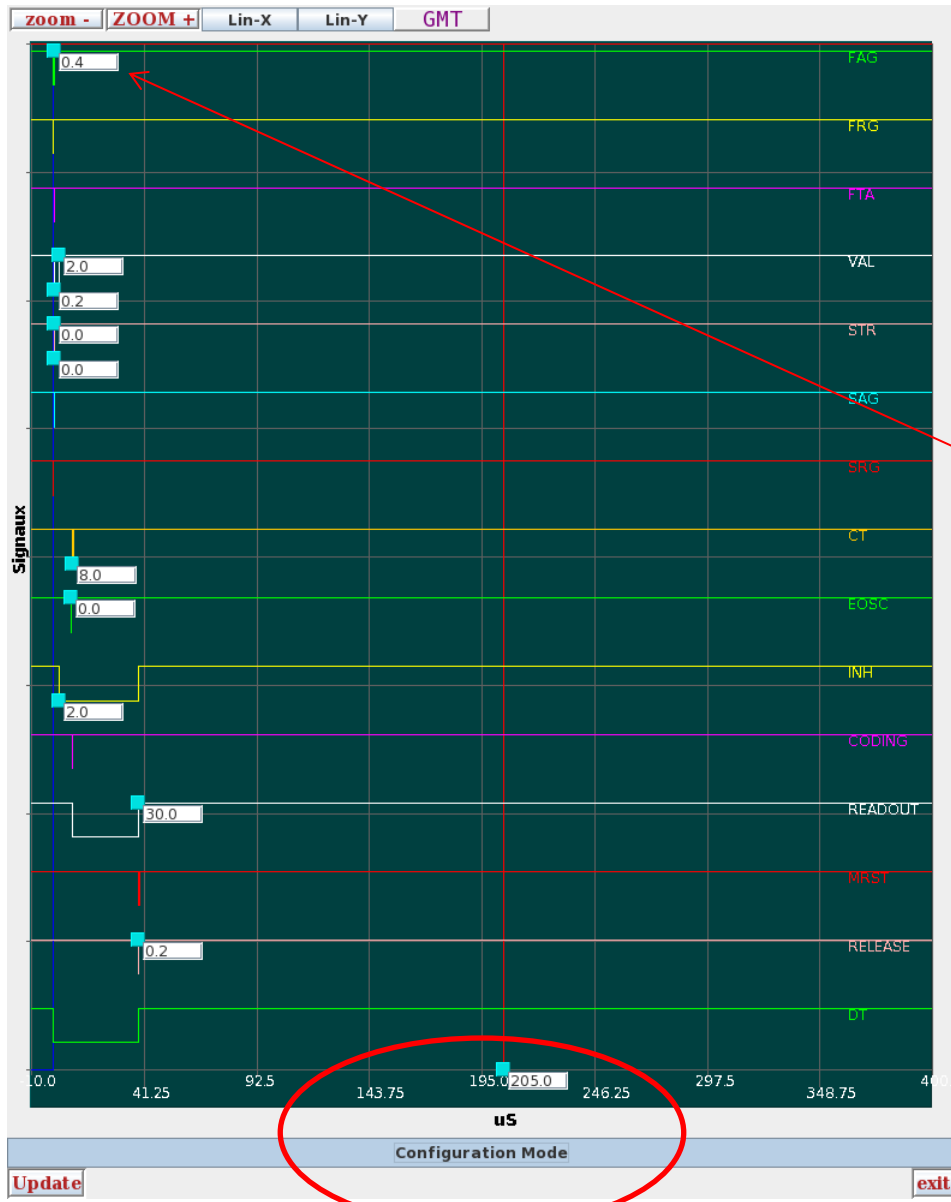
Modified Tuesday, March 11, 2014 9:10:41 AM Document :: : SUCCESS < e628.das >



All MUST2
in the trigger
MM1
MM2
MM3
MM4

Check GMT
chronogramme

GMT set the FAG from 400 to 200 ns for CALIMERO runs



GMT (MUVI crate)
Click on oscilloscope
Click on
Configuration Mode

Change to 200 ns

CENTRUM: initial configuration of the CENTRUM for e6**

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate

Delete Crate

Offline

TIARA DISCRI_TIARA CAENET CATS **MUST2** EXOGAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganlx14

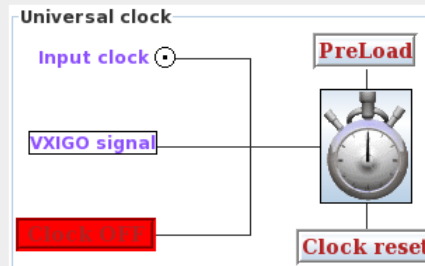
Add Module Delete Module Move module Change CPU

INSPECTION GMT **CENTRUM** MUVI ADC U2M

[CENTRUM Slot(4), Type(CENTRUM)]

User Interface Generic Interface Parameters

RX	TX1 CATS	TX2 TIARA	TX3 CHARISSA	TX4 EXOGAM_4	TX5 CENTRUM	TX6 CENTRUM	TX7 CENTRUM
Master	ON	ON	ON	ON	OFF	OFF	OFF
Mode	Correlated	Correlated	Correlated	Correlated	Single	Single	Single
Local	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Sent...	When hit	When hit	When hit	When hit	When hit	When hit	When hit
Delay TAG	0 ns	0 ns	0 ns	0 ns	0 ns	0 ns	0 ns



Expert Label Reserved

Modified Wednesday, March 5, 2014 12:19:39 PM ADC_8 : Add Module < e628.das >

CENTRUM: disconnect the slaves to do the Time Calib

Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Online e628

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

Crate: 1 Cpu : ganlx14 Add Module Delete Module Move module Change CPU

INSPECTION_ GMT CENTRUM MUVI ADC U2M

CENTRUM Slot(4), Type(CENTRUM)

User Interface Generic Interface Parameters

RX	TX1 CATS	TX2 TIARA	TX3 CHARISSA	TX4 EXOGAM_4	TX5 CENTRUM	TX6 CENTRUM	TX7 CENTRUM
Master	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Mode	Correlated	Correlated	Correlated	Correlated	Single	Single	Single
Local	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Sent...	When hit	When hit	When hit	When hit	When hit	When hit	When hit
Delay TAG	0 ns	0 ns	0 ns	0 ns	0 ns	0 ns	0 ns

Universal clock

Expert Label Reserved

TIARA INITIAL PAGE FOR GAMER (experiment configuration)

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganlx12 Add Module Delete Module Move module Change CPU

INSPECTION GAMER_TI ADC_T0 ADC_TI1 ADC_TI2 ADC_TI3 ADC_TI4 ADC_TI5 ADC_TI6 ADC_TI7 ADC_TI8

[GAMER_TI Slot(2), Type(GAMER)]

User Interface Generic Interface Parameters

Général
Trigger ●
Couplage ●
Automate de Lecture chassis ●
Timer & Générateur d'impu... ●
Expert mode

BF DSP D3 D2 D1 1.5V 1.8V 3.3V -24V +24V -12V +12V -2V -5.2V +5V

Trigger
Déclenchement du sequenreur sur un OU des MTI
Remise a zero sur le signal MRST du bus VXI

Couplage
CENTRUM
Remote Tagging est le signal VXI CT
Fonctionnement du recepteur dans le mode temps mort commun

Automate REN-Readout cycle
Pas d'automate de lecture chassis

Génerateur / Timer
Générateur d'impulsion
Frequence : 100 Hz
Pas de Timer

Echelles

Nom	Comptage	M/A
MTI1	0	<input checked="" type="checkbox"/> Lire
MTI2	0	<input checked="" type="checkbox"/> Lire
DT	0	<input checked="" type="checkbox"/> Lire
CT	0	<input checked="" type="checkbox"/> Lire
RJTFA		<input type="checkbox"/> Lire
RJTEVT		<input type="checkbox"/> Lire
MRST		<input type="checkbox"/> Lire

Lecture RAZ

Inspection

Logique

Seq1 ECLTRG0 (VALIDation)

Seq2 Niveau NIM 0 (0V)

Li1 Niveau NIM 0 (0V)

Li2 Niveau NIM 0 (0V)

Analogique

Modified Wednesday, March 5, 2014 2:04:50 PM ADC_8 : Add Module < e628.das >

CLICK ON TRIGGER to go to the TRIGGER mode page

TIARA INITIAL PAGE FOR GAMER (experiment configuration)

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI_TIARA CAENET CATS MUST2 EXO GAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganlx12 Add Module Delete Module Move module Change CPU

INSPECTION GAMER_TI ADC_T0 ADC_T11 ADC_T12 ADC_T13 ADC_T14 ADC_T15 ADC_T16 ADC_T17 ADC_T18

[GAMER_TI Slot(2), Type(GAMER)]

User Interface Generic Interface Parameters

Autorisation du séquenceur

Chronogramme

zoom - ZOOM + Lin-X Lin-Y GAMER

Signaux

MTI
VAL
INH
CT
MRST
RELEASE
DT

10.0 28.75 67.5 106.25 145.0 155.0 183.75 222.5 261.25 300.0

uS

Configuration Mode

Expert mode

Modified Wednesday, March 5, 2014 2:05:11 PM ADC_8 : Add Module < e628.das >

DISCONNECT THE « sequenceur » TO KEEP TIARA VME offline when starting the Run control



CHECK MUVI CONFIGURATIONS

in electronic setup
and
physicist setup

MUVI configuration (for Exp and for Calib)

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganlx14 Add Module Delete Module Move module Change CPU

INSPECTION GMT CENTRUM MUVI ADC U2M

[MUVI Slot(6), Type(MUVI)]

User Interface Generic Interface Parameters

Confirm Setup

Electronics Setup
 Physicist Setup

MUVI

- CAS/TELESCOPE 1
- CAS/TELESCOPE 2
- CAS/TELESCOPE 3
- CAS/TELESCOPE 4

Mode Acquisition
 Temps mort commun

Mode Lecture Donnee
 VME Standard

Cycle d'acq courants de polarisations
 Executer Lecture

Entree STOP terminee sur 50 Ohms
 oui

RAZ Automatique
 non

Horloge Locale
 non

Echelles

Nom	Comptage	M/A
ORD1	0	<input type="checkbox"/> Lire RAZ
DECS1	0	<input type="checkbox"/> Lire RAZ
STOP1	0	<input type="checkbox"/> Lire RAZ
ORD2	0	<input type="checkbox"/> Lire RAZ
DESC2	0	<input type="checkbox"/> Lire RAZ
STOP2	0	<input type="checkbox"/> Lire RAZ
ORD3	0	<input type="checkbox"/> Lire RAZ
DECS3	0	<input type="checkbox"/> Lire RAZ
STOP3	0	<input type="checkbox"/> Lire RAZ
ORD4	0	<input type="checkbox"/> Lire RAZ
DECS4	0	<input type="checkbox"/> Lire RAZ
STOP4	0	<input type="checkbox"/> Lire RAZ
VAI	0	<input type="checkbox"/> Lire RAZ

Modified Wednesday, March 5, 2014 12:21:23 PM ADC_8 : Add Module < e628.das >

MUVI Configuration (for Exp and Time Calib)

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganlx14 Add Module Delete Module Move module Change CPU

INSPECTION GMT CENTRUM MUVI ADC U2M

[MUVI Slot(6), Type(MUVI)]

User Interface Generic Interface Parameters

DECS4 0 Lire Raz

STOP4 0 Lire Raz

VAL 0 Lire Raz

STOP 0 Lire Raz

CK_TST 0 Lire Raz

ST_BUS 0 Lire Raz

Lecture RAZ

Test

-Synchro Test-

SYN_TST genere par ST_BUS : Lire

SYN_TST genere par l'horloge CKTST interne MUVI : Lire

CKTST : 0.3 4.8 76.8 12299830 153.6 Hz

Generation d'un signal STOP de test a partir de SYN_TST : Lire

Retard : 0 100 200 300 0 ns

EXPERT

Confirm Setup

Modified Wednesday, March 5, 2014 12:24:25 PM ADC_8 : Add Module < e628.das >

TAC Range on Mate (for Exp and for Calib)

The screenshot displays the MUST2 software interface. At the top, there is a menu bar with 'File', 'Utilities', 'Update', 'Acquisition', 'Visualization', 'Option', 'Reserved', and 'Help'. Below the menu bar are buttons for 'Add Crate', 'Delete Crate', and 'Offline'. A row of crate names is shown: TIARA, DISCRI_TIARA, CAENET, CATS, MUST2, EXOGAM, and VXI_CHARISSA. Below this, there are buttons for 'Add Module', 'Delete Module', 'Move module', and 'Change CPU'. The main window title is '[MUVI Slot(6), Type(MUVI)]'. The interface is divided into several sections: 'User Interface', 'Generic Interface', and 'Parameters'. The 'Parameters' section is active and contains three sub-sections: 'Autorisation des Voies' (Voies 1-16), 'Seuils des discriminateurs' (Seuil: 401.57 keV), and 'Charge test Qt' (Voie en test: Aucune). The 'Configuration et Requete Mate' section is also active, showing 'Mode de Lecture' (Energie & Temps), 'Constante Shaper' (1us), 'Gain du PAC' (Si), and 'Gamme de conversion du TAC' (600 ns). A red circle highlights the '600 ns' option, and a white box with '600 ns' is placed next to it. The status bar at the bottom shows 'Modified Wednesday, March 5, 2014 12:31:51 PM' and 'ADC_8 : Add Module < e628.das >'.

Discriminator thresholds, polarities of the MufeeX/MufeeY

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

VXI Crate: 1 Cpu : ganx14 Add Module Delete Module Move module Change CPU

INSPECTION GMT CENTRUM MUVI ADC U2M

[MUVI Slot(6), Type(MUVI)]

User Interface Generic Interface Parameters

Confirm Setup

Sector: MUVI Sector 1

KeV																	KeV
100%																	2000
	MATE 1 - Si Junction pistes 1-16	MATE 2 - Si Junction pistes 17-32	MATE 3 - Si Junction pistes 33-48	MATE 4 - Si Junction pistes 49-64	MATE 5 - Si Junction pistes 65-80	MATE 6 - Si Junction pistes 81-96	MATE 7 - Si Junction pistes 97-112	MATE 8 - Si Junction pistes 113-128	MATE 9 - Si Ohmique pistes 1-16	MATE 10 - Si Ohmique pistes 17-32	MATE 11 - Si Ohmique pistes 33-48	MATE 12 - Si Ohmique pistes 49-64	MATE 13 - Si Ohmique pistes 65-80	MATE 14 - Si Ohmique pistes 81-96	MATE 15 - Si Ohmique pistes 97-112	MATE 16 - Si Ohmique pistes 113-128	MATE 17 - Sili voies 1-16
50%	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402	2598
0%																	
	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	+

Confirm Setup

Modified Wednesday, March 5, 2014 1:55:23 PM ADC_8 : Add Module < e628.das >

Paramètres de calibration

Selection Mate **1**

Coefficient/Mate	1	2	3	4	5	6	7	8
Coeff 1	0	0	0	0	0	0	0	0
Coeff 2	0	0	0	0	0	0	0	0
Coefficient/Mate	9	10	11	12	13	14	15	16
Coeff 1	0	0	0	0	0	0	0	0
Coeff 2	0	0	0	0	0	0	0	0

Identite : 0 Temperature : 0 °C Seuil haut alarme de Temperature : 0 °C Seuil bas alarme de Temperature : 0 °C

Voies en Panne

Selection Mate **1**

Voie :	1	2	3	4	5	6	7	8
	9	10	11	12	13	14	15	16

MufeeX

Tension de decalage

	+0.8V	-0.8V	GND
Si a pistes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SiLi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Paramètres de calibration

Selection Mate **9**

Coefficient/Mate	1	2	3	4	5	6	7	8
Coeff 1	0	0	0	0	0	0	0	0
Coeff 2	0	0	0	0	0	0	0	0
Coefficient/Mate	9	10	11	12	13	14	15	16
Coeff 1	0	0	0	0	0	0	0	0
Coeff 2	0	0	0	0	0	0	0	0

Courant des pistes Si (cote ohmique)

Selection Mate **9**

	Piste 1	Piste 2	Piste 3	Piste 4	Piste 5	Piste 6	Piste 7	Piste 8
Courant (nA)	0	0	0	0	0	0	0	0
	Piste 9	Piste 10	Piste 11	Piste 12	Piste 13	Piste 14	Piste 15	Piste 16
Courant (nA)	0	0	0	0	0	0	0	0

Identite : 0 Temperature : 45 °C Seuil haut alarme de Temperature : 0 °C Seuil bas alarme de Temperature : 0 °C

Voies en Panne

Selection Mate **9**

Voie :	1	2	3	4	5	6	7	8
	9	10	11	12	13	14	15	16

MufeeY

Tension de decalage

	+0.8V	-0.8V	GND
Si a pistes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CsI	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Visualisation de la sortie Debug des Mates

0	10	11	12	13	14	15	16
---	----	----	----	----	----	----	----

Exit

EXP Initial configuration: suppression of pedestals in Cas/telescope

The screenshot shows the MUST2 configuration software interface. The main window is titled 'Confirmation Setup' and contains several configuration options. A red circle highlights the 'Suppression des donnees Temps en depassement' and 'Suppression des donnees Energie en depassement' options, both of which are set to 'oui' (yes). Another red circle highlights the 'Normalisation des pedestaux aux valeurs brutes des ADC' option, which is also set to 'oui'. The interface includes a menu bar at the top with options like 'File', 'Utilities', 'Update', 'Acquisition', 'Visualization', 'Option', 'Reserved', and 'Help'. Below the menu bar are buttons for 'Add Crate', 'Delete Crate', and 'Offline'. The main area is divided into sections for 'User Interface', 'Generic Interface', and 'Parameters'. The 'Parameters' section is currently active and shows the 'Confirmation Setup' dialog. The dialog includes a table for 'Valeurs de Seuil appliquees aux parametres Energie' with columns for 'Seuil Haut' and 'Seuil Bas'. The table lists parameters like MATE 1 a 8, MATE 9 a 16, MATE 17, and MATE 18 with their respective threshold values. The status bar at the bottom indicates 'Modified Wednesday, March 5, 2014 12:26:12 PM' and 'ADC_8 : Add Module < e628.das >'.

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI_TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

VXI Crate : 1 Cpu : ganx14 Add Module Delete Module Move module Change CPU

INSPECTION GMT CENTRUM MUVI ADC U2M

[MUVI Slot(6), Type(MUVI)]

User Interface Generic Interface Parameters

Confirm Setup

● Electronics Setup
○ Physicist Setup

MUVI

- CAS/TELESCOPE 1
- CAS/TELESCOPE 2
- CAS/TELESCOPE 3
- CAS/TELESCOPE 4

Traitement Numerique

Suppression des donnees Temps en depassement : oui

Suppression des donnees Energie en depassement : oui

Donnee Energie supprime (SBE<donnee E<SHE): oui

Valeurs de Seuil appliquees aux parametres Energie

	Seuil Haut	Seuil Bas
MATE 1 a 8	8242	8142
MATE 9 a 16	8242	8142
MATE 17	8242	8142
MATE 18	2030	1950

Normalisation des pedestaux aux valeurs brutes des ADC : oui Visualisation des Piedestaux

Application du coeff de correction de Gain (Ge/Gi) a chaque valeur numerique Nadc du parametre Ei : oui

Application du coeff de correction de Gain (Gt/Gj) a chaque valeur numerique Nadc du parametre Tj : oui

Signaux de Declenchement

- ORDi: declenchement CAS par le signal ORD de son secteur
- SYN_TST: declenchement par SYN_TST de la carte mere
- VAL: declenchement par le signal VAL (FT) issu du trigger GMT

Modified Wednesday, March 5, 2014 12:26:12 PM ADC_8 : Add Module < e628.das >

Configuration for CAS/telescopes: ORDi ok for all cases (EXP, Calib)

The screenshot shows the configuration software interface for the MUST2 experiment. The main window is titled 'Parameters' and contains several sections for configuring the system. A red box highlights the 'ORDi' checkbox under the 'Signaux de déclenchement' section, with an arrow pointing to it from a text box that says 'ORDi For all CAS telescopes'. The 'ORDi' checkbox is checked, indicating that the system is configured to use the ORDi signal for triggering. Other sections include 'Reglages signaux acquisition' with sliders for clock period, hold delays, and validation point, and 'Amplitude generateur de test interne' with a slider for test amplitude. The interface also includes a menu bar at the top with options like 'File', 'Utilities', 'Update', 'Acquisition', 'Visualization', 'Option', 'Reserved', and 'Help'. A status bar at the bottom shows the current configuration file as 'e628.das'.

File Utilities Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Offline

TIARA DISCRI TIARA CAENET CATS MUST2 EXOGAM VXI_CHARISSA

Add Module Delete Module Move module Change CPU

ORDi For all CAS telescopes

Parameters

Signaux de déclenchement

- ORDi: déclenchement CAS par le signal ORD de son secteur
- SYN_TST: déclenchement par SYN_TST de la carte mere
- VAL: déclenchement par le signal VAL (FT) issu du trigger GMT
- DECD: déclenchement par le signal DECD venant de la carte mere

Reglages signaux acquisition

Periode horloge CKI: 1 us

Retard RshP(transition positive) du signal HOLDi: 975 ns

Retard RshP(transition negative) du signal HOLDi: 3008 ns

Reglage du point de validation

0.945 us

Amplitude generateur de test interne

Amplitude: 0.00003784 V Remise a zero

EXPERT

Confirm Setup

Modified Wednesday, March 5, 2014 12:26:50 PM ADC_8 : Add Module < e628.das >

CONFIGURATION OF CAS/TELESCOPE FOR TIME CALIBRATION (for all MM2)

VXI Crate : 1 Cpu : ganlx7

Add Module Delete Module Move module Change CPU

INSPECTION GMT1_1_2 CEN1_1_5 ADC1_1_7 MUVI1_1_9 MUVI1_1_11

[MUVI1_1_9 Slot(9), Type(MUVI)]

User Interface Generic Interface Parameters

Confirm Setup

Electronics Setup
Physicist Setup

MUVI

- CAS/TELESCOPE 1
 - MUFEE X
 - MUFEE Y
- CAS/TELESCOPE 2
- CAS/TELESCOPE 3
- CAS/TELESCOPE 4

Traitement Numerique

Suppression des donnees Temps en depassement :

Suppression des donnees Energie en depassement :

Donnee Energie supprime (SBE<donnee E<SME):

Valeurs de Seuils appliques aux parametres Energie

	Seuil Haut	Seuil Bas
MATE 1 a 8	8192	8192
MATE 9 a 16	8192	8192
MATE 17	8192	8192
MATE 18	8192	8192

Normalisation des pedestaux aux valeurs brutes des ADC : Visualisation des Piedestaux

Application du coeff de correction de Gain (Ge/Gi) a chaque valeur numerique Nadc du parametre Ei :

Application du coeff de correction de Gain (Gt/Gj) a chaque valeur numerique Nadc du parametre Tj :

Signaux de Declenchement

ORDi: declenchement CAS par le signal ORD de son secteur

SYN_TST: declenchement par SYN_TST de la carte mere

VAL: declenchement par le signal VAL (FT) issu du trigger GMT

DECD: declenchement par le signal DECD venant de la carte mere

Reglages signaux acquisition

Periode horloge CKi : us

Retard RshP(transition positive) du signal HOLDi : ns

Modified Wednesday, June 26, 2013 4:10:07 PM ADC2_1_9 : Add Module < e655s.das >

DAS CONFIGURATION

When the configuration is correctly set,
Stay on the page of the GMT of the MUST2 crate

change DAS from OFFLINE TO ONLINE

The window appears:

Click on CANCEL



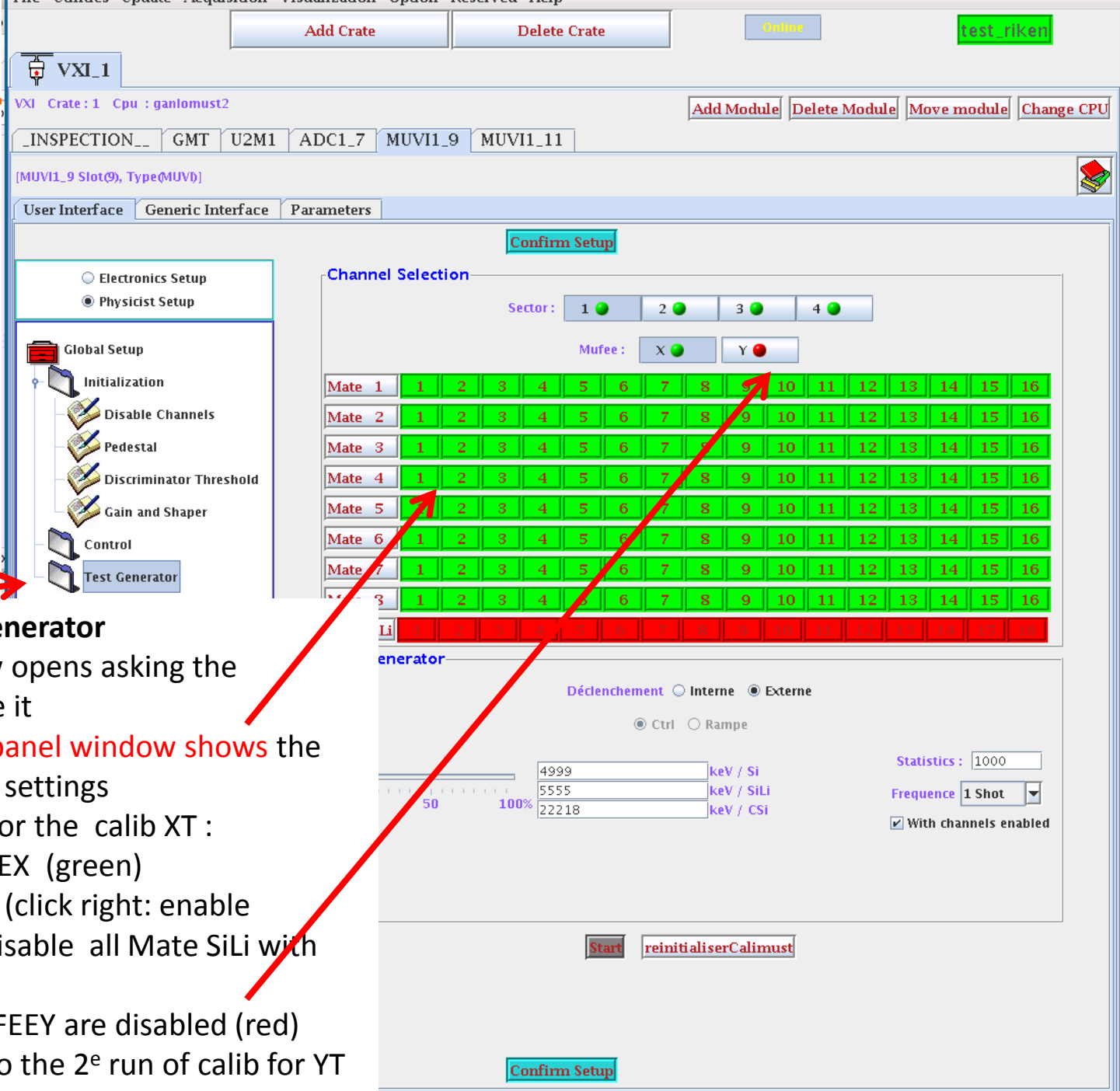
THEN (staying on MUST2 GMT module)

Go to Menu UPDATE

And select FOR THE CURRENT CRATE

write **SOFTWARE TO HARDWARE**

LAUNCHING CALIMERO



1. Click on **Test generator**
2. Then a window opens asking the password, Type it
3. Wait, and the panel window shows the Test Generator settings
4. Prepare 1st run, for the calib XT :
 4. Select the MUFEEEX (green) of the 4 telescopes (click right: enable all MufeeX, then disable all Mate SiLi with click right)
 check that all MUFEEY are disabled (red) and vice-versa to do the 2^e run of calib for YT

VXI_1

VXI Crate : 1 Cpu : ganlomust2

[MUV11_9 Slot@], Type(MUVb)

Electronics Setup
 Physicist Setup

Global Setup

- Initialization
- Disable Channels
- Pedestal
- Discriminator Threshold
- Gain and Shaper
- Control
- Test Generator

Channel Selection

Sector: 1 2 3 4

Mufee: X Y

Mate 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mate SiLi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test Generator

Déclenchement Interne Externe

Ctrl Rampe



keV / Si
 keV / SiLi
 keV / CSi

Statistics:

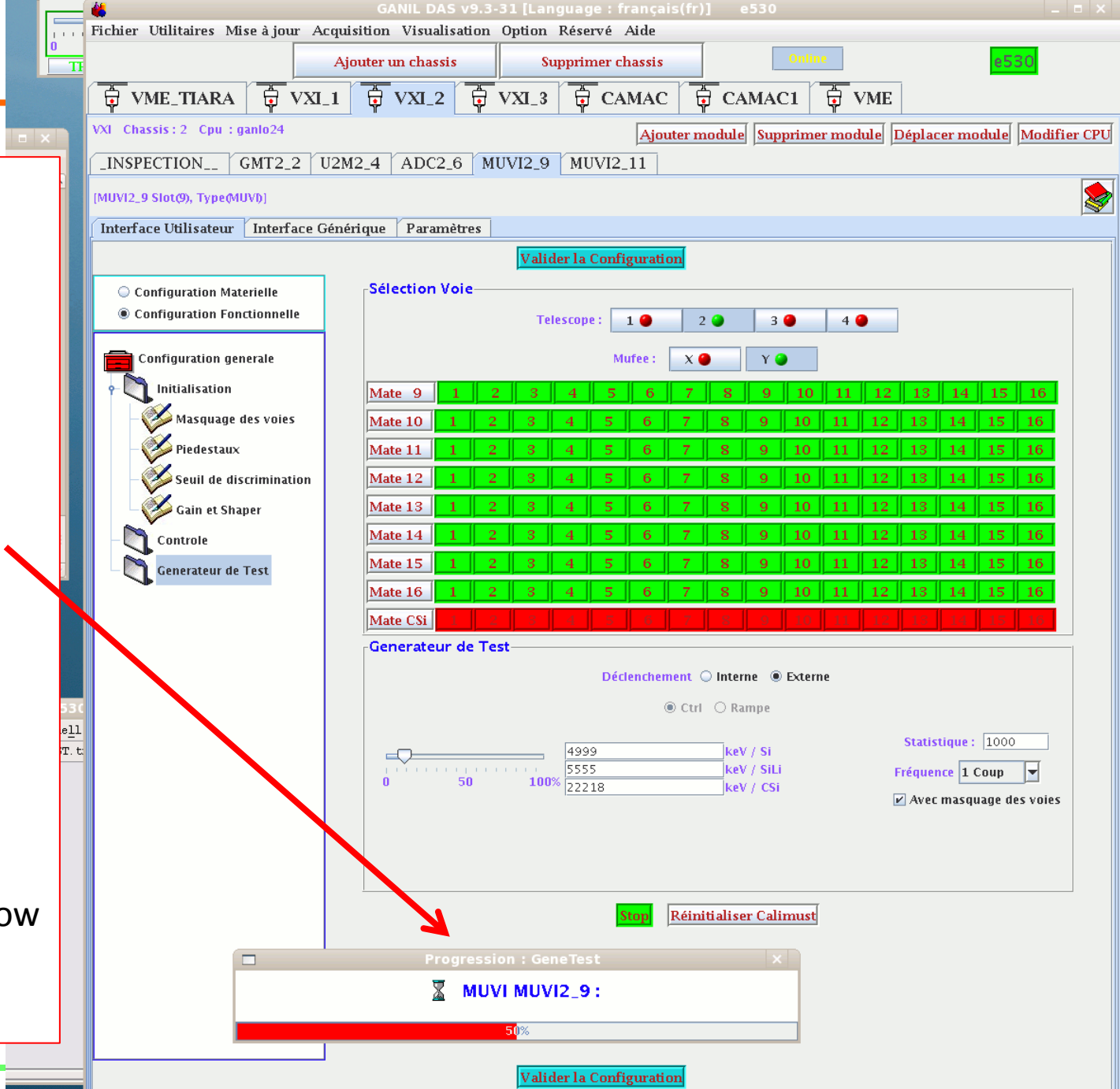
Frequency:

With channels enabled

FIRST START DAQ
with the Run
Control
Then START here
the Calimero

Value > thresholds
Typical 5 MeV

STATISTICS: 1000
Frequency: 1 shot
With channels enabled



FIRST:
 START ACQUISITION
 in the Run Control
 Then click on « START »
 in the
 Generator window

Wait for the window
 showing the progress
For each Mate
 channels 1: 6%
 All ch. 2 13%
 3: ...
 14: 88%
 channels 15: 94%
 Wait till the end to stop
 the Run in the RC window

Add Crate Delete Crate Online test_riken

VXI_1

VXI Crate : 1 Cpu : ganlomust2 Add Module Delete Module Move module Change CPU

INSPECTION GMT U2M1 ADC1_7 MUVI1_9 MUVI1_11

[MUVI1_9 Slot(9), Type(MUVI)]

User Interface Generic Interface Parameters

Confirm Setup

Electronics Setup Physicist Setup

- Global Setup
 - Initialization
 - Disable Channels
 - Pedestal
 - Discriminator Threshold
 - Gain and Shaper
 - Control
 - Test Generator

Channel Selection

Sector: 1 2 3 4

Mufee: X Y

Mate 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate SiLi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Test Generator

Déclenchement Interne Externe

Ctrl Rampe



4999 keV / Si
 5555 keV / SiLi
 22218 keV / CSI

Statistics: 1000

Frequence 1 Shot

With channels enabled

Start reinitialiserCalimust

Confirm Setup

MUVI MUVI1_1_9 :

GANIL DAS v13.06-27 [Language : English(en)] e655s

File UTILITIES Update Acquisition Visualization Option Reserved Help

Add Crate Delete Crate Online

VXI_1_1 VXI_2_1 VME1 VXI_1 VME2

XI Crate : 1 Cpu : ganlx7 Add Module Delete Module Move module Change CPU

INSPECTION GMT1_1_2 CEN1_1_5 ADC1_1_7 MUVI1_1_9 MUVI1_1_11 U2MSCALER

MUVI1_1_9 Slot(9), Type(MUVI)

User Interface Generic Interface Parameters

Confirm Setup

Channel Selection

Sector : 1 2 3 4

Mufee : X Y

Mate 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate SiLi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Test Generator

Déclenchement Int Ctrl F

0 50 100%

10968 keV / Si
12186 keV / SiLi
48746 keV / CSi

Progression : GeneTest

MUVI MUVI1_1_9 :

44%

frequency 1 Shot

With channels enabled
 NoTimeOut

Stop reinitialiserCallmust

Confirm Setup

Modified Wednesday, September 25, 2013 12:41:33 PM CAENET : Add Module < e655s.das >

LOAD THE VIGRU configuration (vigru_e6**MM2TCalib.xml) or adapt one to check the time spectra of MUST2 (both 2D and 1D)
→ specific for MUST2 with the following RAW spectra

ONE PAGE FOR THE 2D XT: $i=1,\dots,4$ MMi_STRX_T_BRU

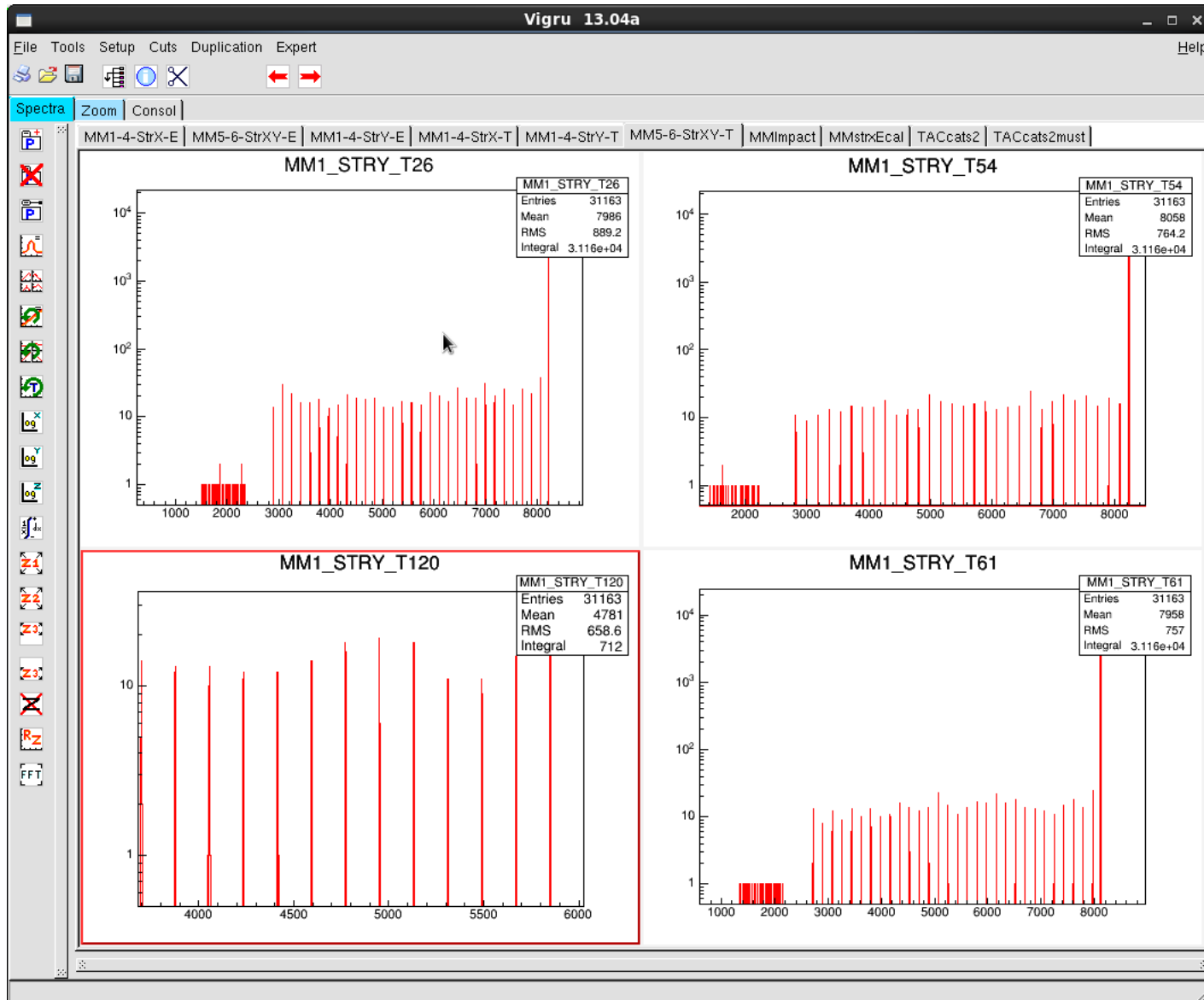
ONE PAGE FOR THE 2D YT: $i=1,\dots,4$ MMi_STRY_T_BRU

PAGES with selection 1D spectra on each telescope

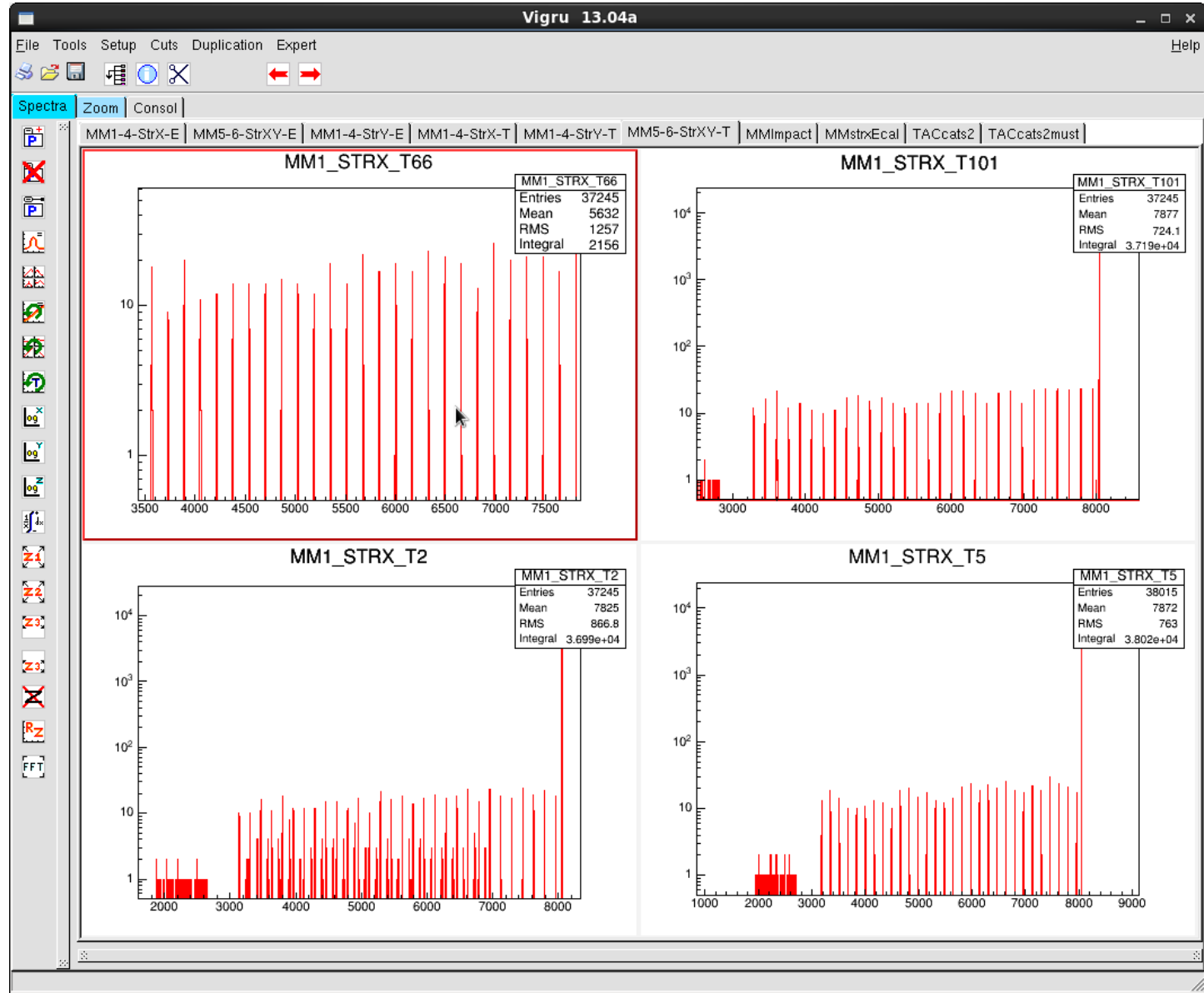
RAW/MM1/ MM1_STRX_Ti

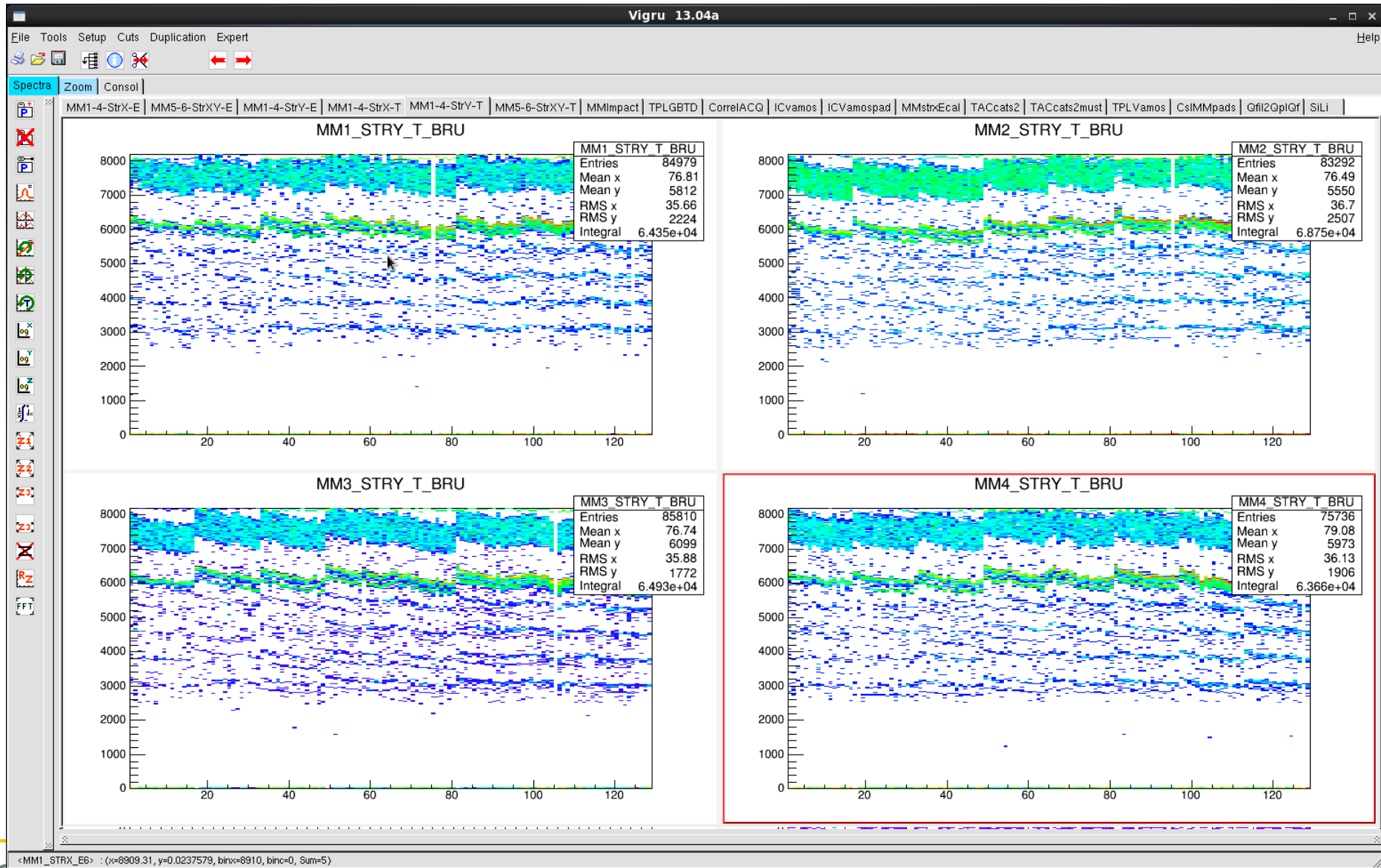
SEE PLOTS obtained during TESTS E655s experiment in VAMOS (next pages)

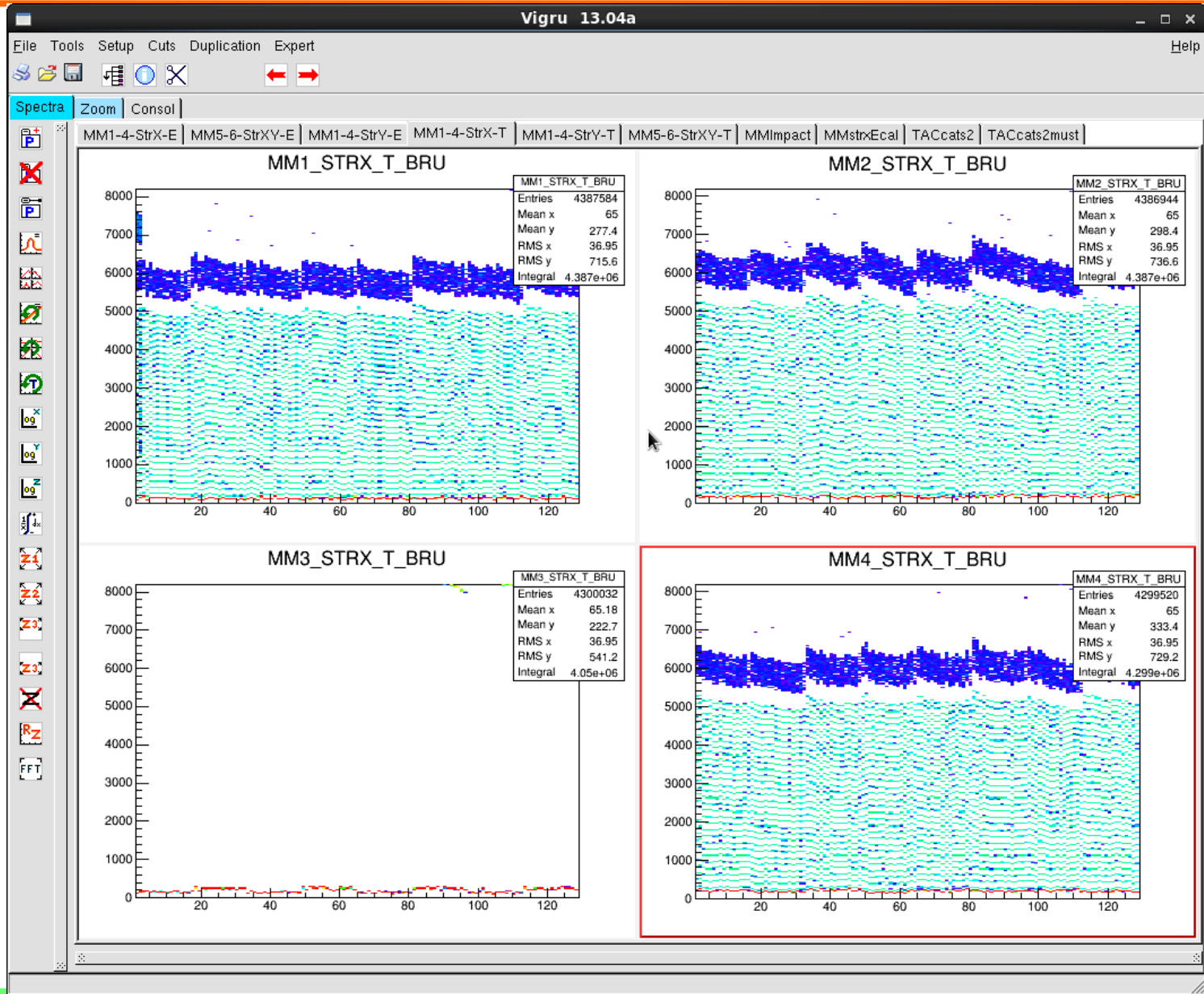
CALIMERO TESTS E655S experiment in VAMOS



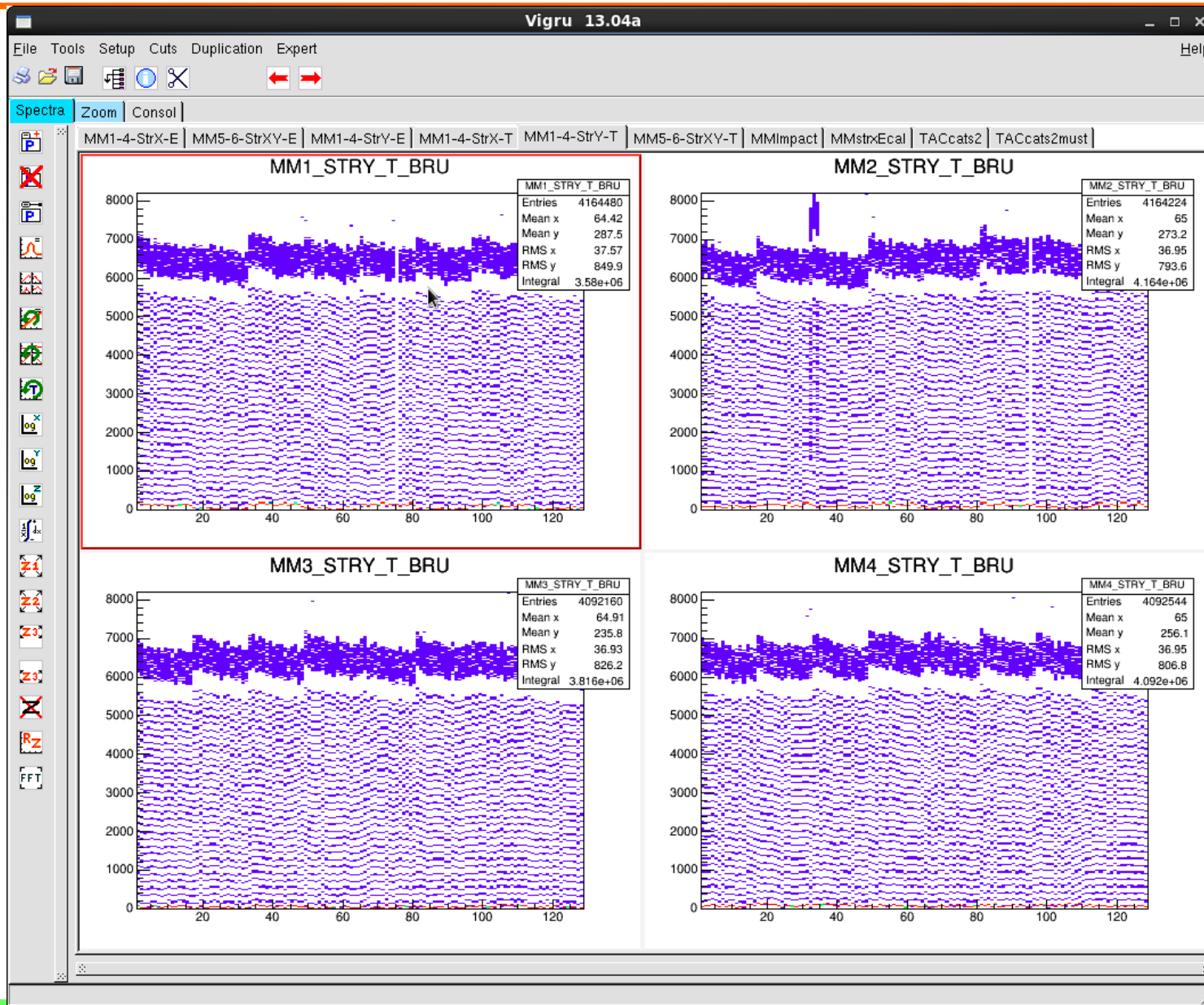
E655S DAQ – MUST2 TESTS







Time
Calibrator
Range 640 ns
Période 20ns



TROUBLES...

IN CASE OF TROUBLES, ASK The GIP to fix the following problems:

-- In case of Muvi problems communication :

Be sure that the GRU version is correctly set to the location of the Calimero program

In a Terminal, the execution of the Calimero program is checked (event rate) by typing:

Calimero.exe -q cali.C



-- In case of hardware problems (no trigger) ask the GIP to check with the SYN_tst and to check buffers

TROUBLES WITH CALIMERO

VXI Crate : 1 Cpu : ganlx14

Add Module Delete Module Move modu

INSPECTION GMT CENTRUM MUVI ADC U2M

[MUVI Slot(6), Type(MUVI)]

User Interface Generic Interface Parameters

- Global Setup
 - Initialization
 - Disable Channels
 - Pedestal
 - Discriminator Threshold
 - Gain and Shaper
 - Control
 - Test Generator

Mufee : X Y

Mate 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mate 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
M	10	11	12	13	14	15	16									
M	10	11	12	13	14	15	16									
M	10	11	12	13	14	15	16									
M	10	11	12	13	14	15	16									
Mate SiLi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

MUVI Interrupted Communication with Calimero !!!

OK

Test Generator

Déclenchement Interne Externe

Ctrl Rampe

0 50 100%

4999 keV / Si
5555 keV / SiLi
22218 keV / CSi

Statistics : 1000

frequency 1 Shot

With channels enabled
 NoTimeOut

Stop reinitialiserCalimust

CHECK THAT ALL CRATES ARE INVALID (0) DURING THE RUN SEQUENCE OF CALIMERO

Click on COMMAND to obtain this window in which the Menu Supervision gives:

The screenshot displays a Linux desktop environment with several windows. A red circle highlights the 'Command' menu item in the top-left application menu. A red arrow points from this menu item to the 'Supervision' window, which is titled 'e628_ganlx12 : INIT'. Another red arrow points from the 'Supervision' window title to the 'System command v14.03-03 [Language: English(en)]' window. The 'Supervision' window shows a list of crates with their status and options. The 'System command' window shows the 'Init S_INIT' command being sent.

Visible Name	Status	Status	Option
ACS	ALIVE	S_RUN	
Buffer: 0	buf /s: 0.0	Event: 0	evt /s: 0.0 error: 0
SBUF	ALIVE	S_INIT	O_TRANSMIT
Buffer: 785	buf /s: 0.75	Event: 0	evt /s: 0.0 error: 0
VXCAM	ALIVE	S_INIT	O_TRANSMIT
Buffer: 487	buf /s: 0.0	Event: 0	evt /s: 0.0 error: 68
ECH	ALIVE	S_RUN	O_TRANSMIT
Buffer: 53	buf /s: 0.75	Event: 0	evt /s: 0.0 error: 0
ACS	ALIVE	S_RUN	
Buffer: 0	buf /s: 0.0	Event: 0	evt /s: 0.0 error: 0
SBUF	ALIVE	S_INIT	O_TRANSMIT
Buffer: 36061	buf /s: 0.75	Event: 13726037	evt /s: 0.0 error: 0
VXCAM	ALIVE	S_INIT	O_TRANSMIT
Buffer: 20758	buf /s: 0.0	Event: 13726037	evt /s: 0.0 error: 0
ECH	ALIVE	S_RUN	O_TRANSMIT
Buffer: 4923	buf /s: 0.75	Event: 0	evt /s: 0.0 error: 0
ACS	ALIVE	S_RUN	
Buffer: 0	buf /s: 0.0	Event: 0	evt /s: 0.0 error: 0
SBUF	ALIVE	S_INIT	O_TRANSMIT
Buffer: 147	buf /s: 0.75	Event: 68	evt /s: 0.0 error: 0
VXCAM	ALIVE	S_INIT	O_TRANSMIT
Buffer: 0	buf /s: 0.0	Event: 0	evt /s: 0.0 error: 0
ECH	ALIVE	S_RUN	O_TRANSMIT
Buffer: 97	buf /s: 0.75	Event: 0	evt /s: 0.0 error: 0
ACS	ALIVE	S_RUN	
Buffer: 20764	buf /s: 0.0	Event: 13726036	evt /s: 0.0 error: 0
SBUF	ALIVE	S_INIT	O_TRANSMIT
Buffer: 20764	buf /s: 0.0	Event: 13726036	evt /s: 0.0 error: 0
VXCAM	ALIVE	S_INIT	O_TRANSMIT
Buffer: 20764	buf /s: 0.0	Event: 13726036	evt /s: 0.0 error: 0

Mode Expert Alarme Température

The screenshot displays the 'Expert Muvi' configuration window for 'Declenchement CAS par DECD'. The window is titled 'Expert Muvi' and contains the following elements:

- CAS Configuration:** Four rows of CAS settings, each with four radio buttons for ORD1, ORD2, ORD3, and ORD4.
 - CAS1: ORD2 ORD3 ORD4
 - CAS2: ORD1 ORD3 ORD4
 - CAS3: ORD1 ORD2 ORD4
 - CAS4: ORD1 ORD2 ORD3
- Parameters:** 'Nombre minimum de parametres en FIFO de donnees' is set to 1.
- Buttons:** 'Self Test' (Executer) and 'Alarme Temperature Activee' (Non).
- Menu:** A vertical menu on the right with options: 'Acces DSP', 'Recharger le programme DSP', 'INISOFT', 'Arret', and 'Exit'. A red arrow points to the 'Non' button in the 'Alarme Temperature Activee' field.

In the background, the main software interface shows the 'Paramètres' tab for 'MUVI1_11 Slot(1)'. It includes a 'Test' section with a 'Synchro Test' graph and a 'Retard' slider. A yellow arrow points from the 'Retard' slider to the 'Expert Muvi' window. The 'Expert Muvi' window also shows a 'Oui' button for 'Alarme Temperature Activee' in a smaller instance. At the bottom of the main interface, the 'EXPERT' button is circled in blue, and a yellow arrow points from it to the 'Expert Muvi' window. The 'Valider la Configuration' button is also visible at the bottom.