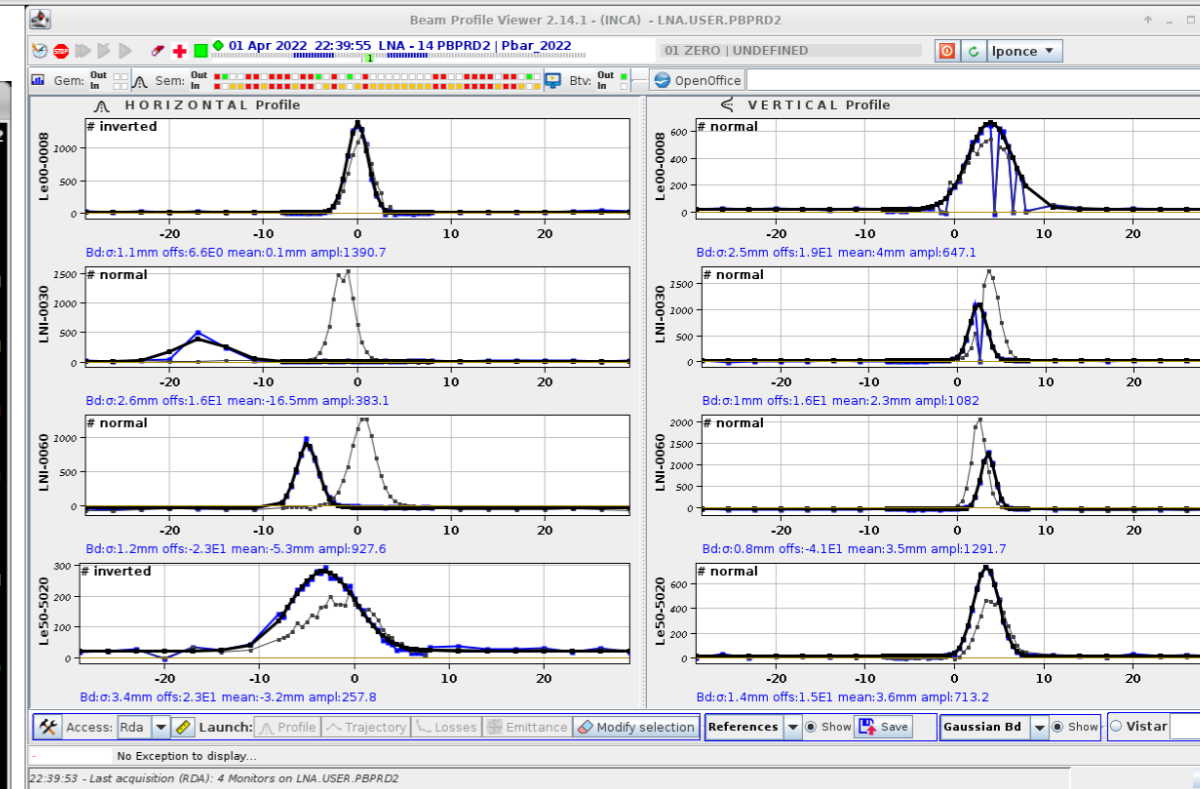
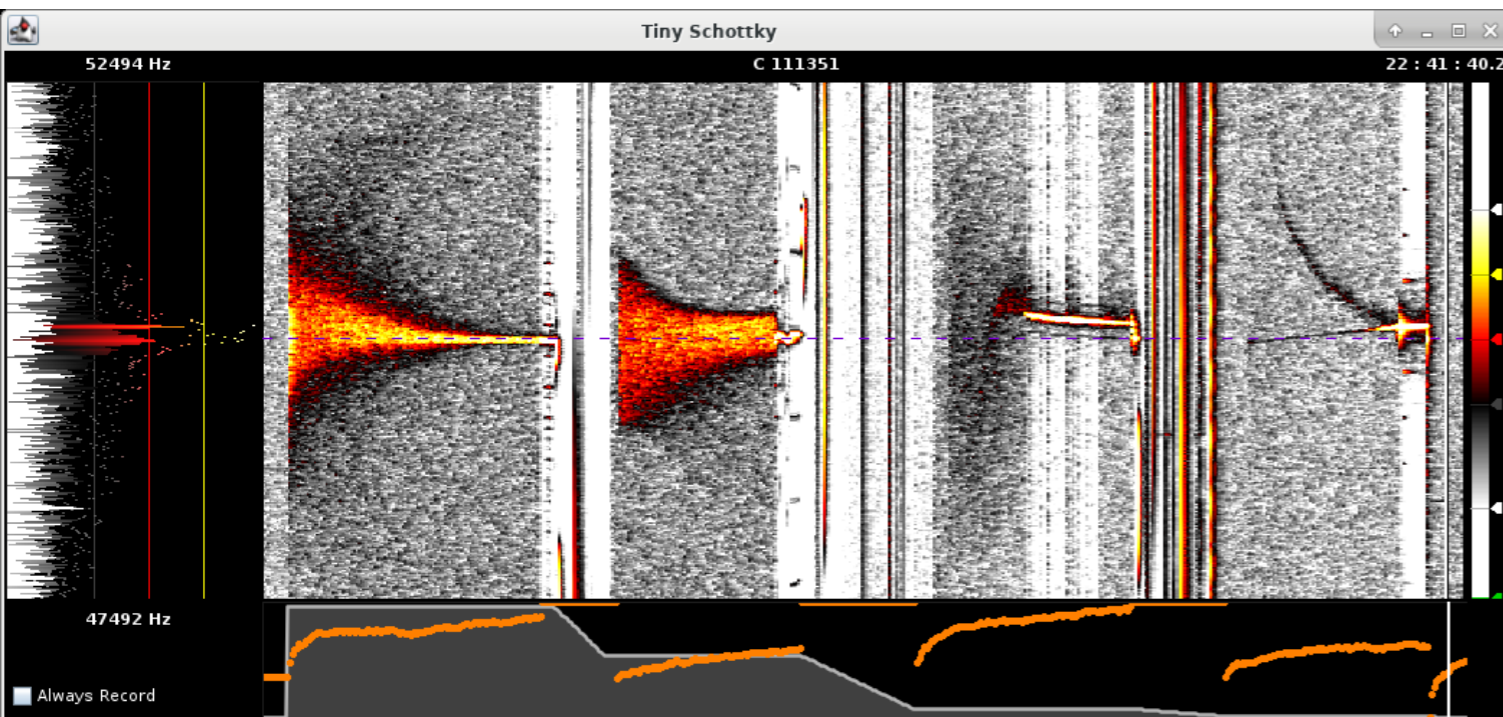
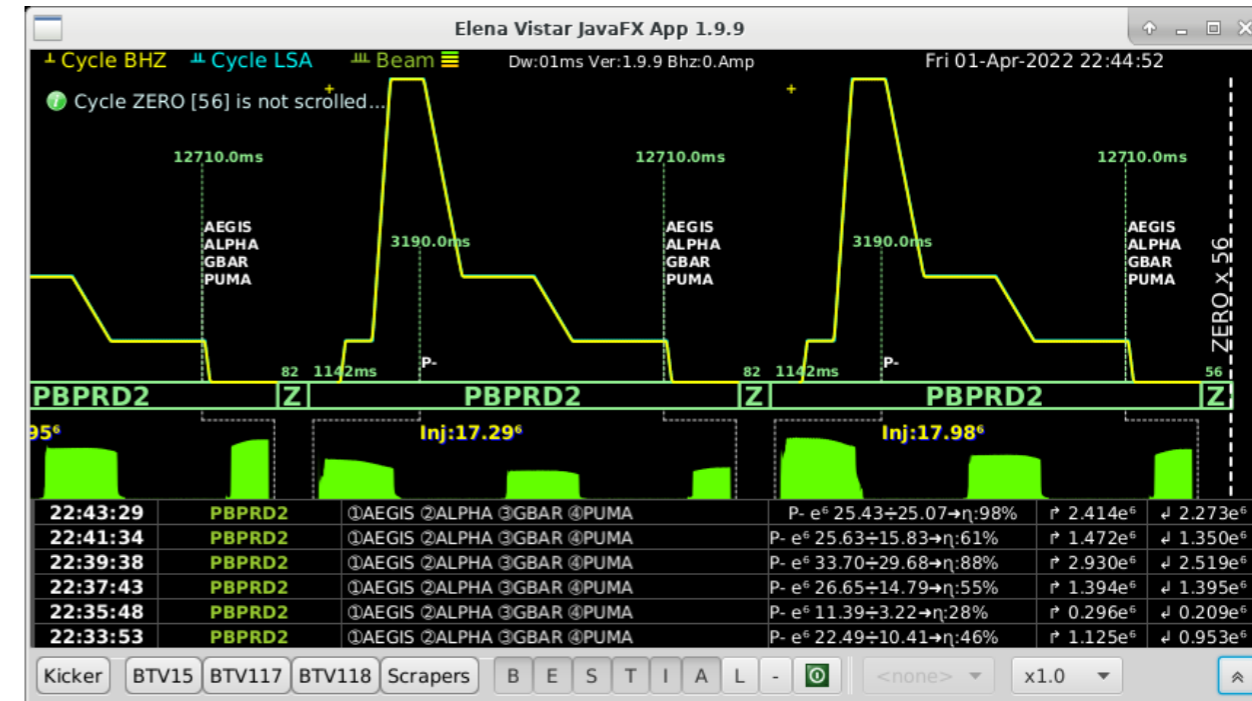
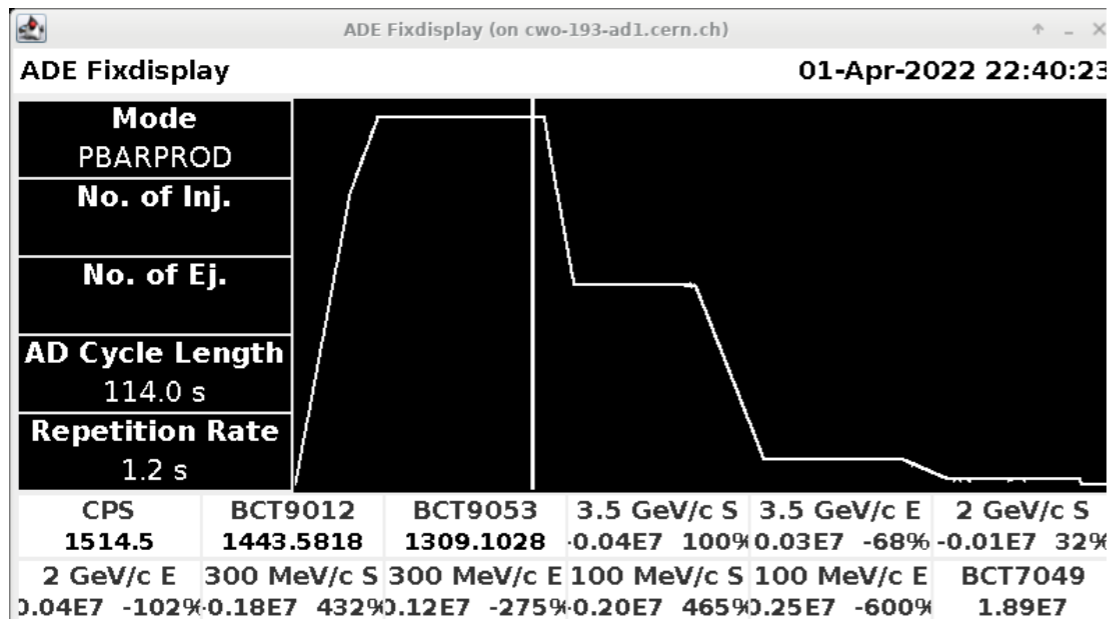




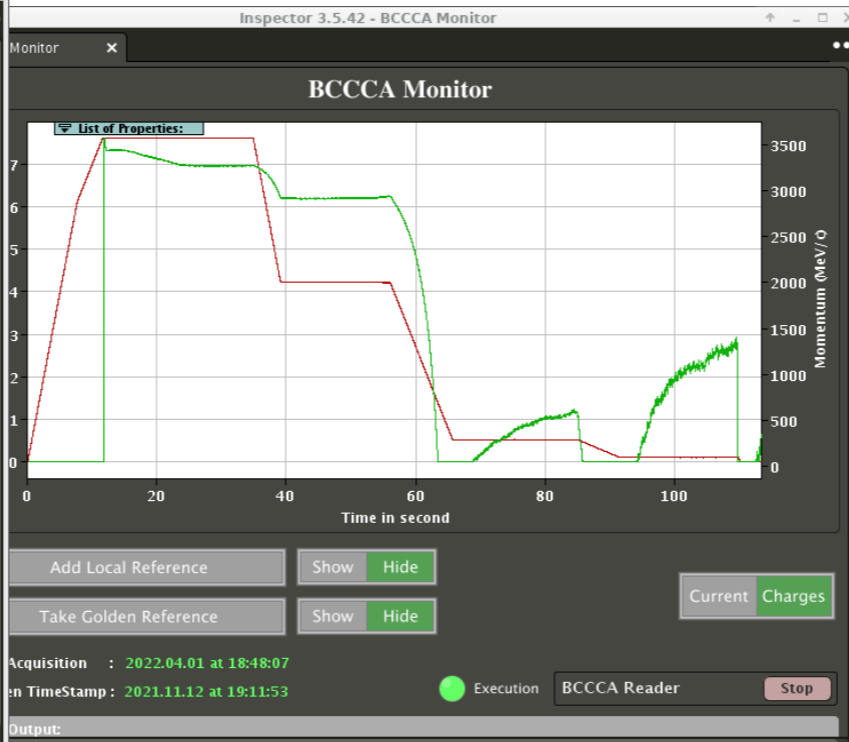
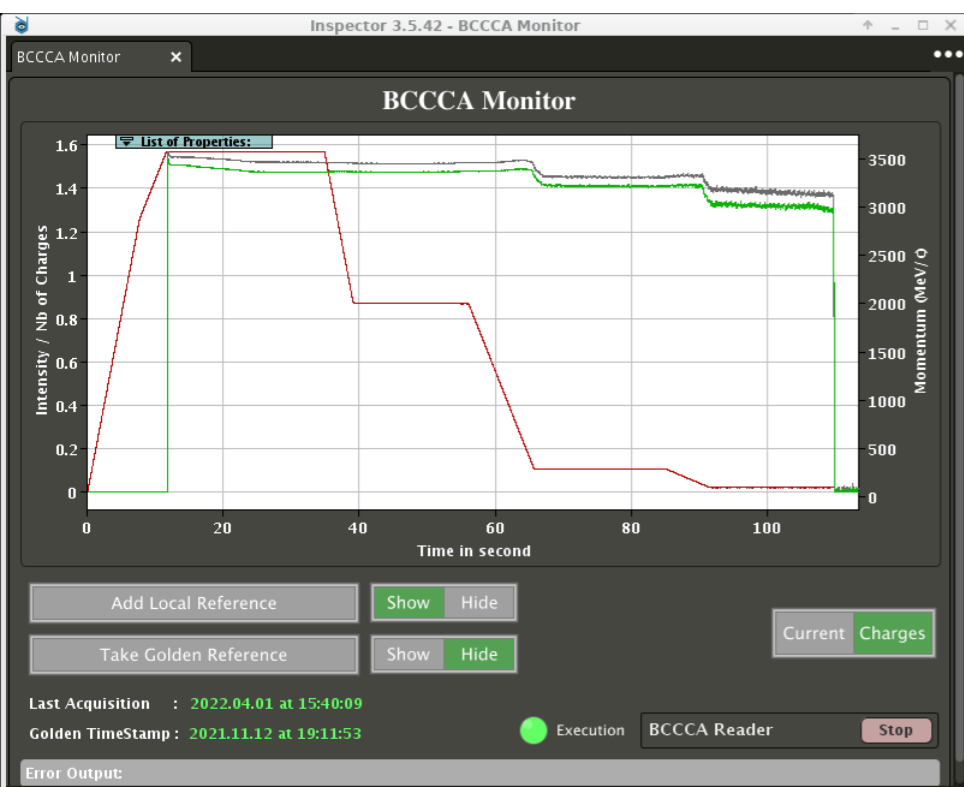
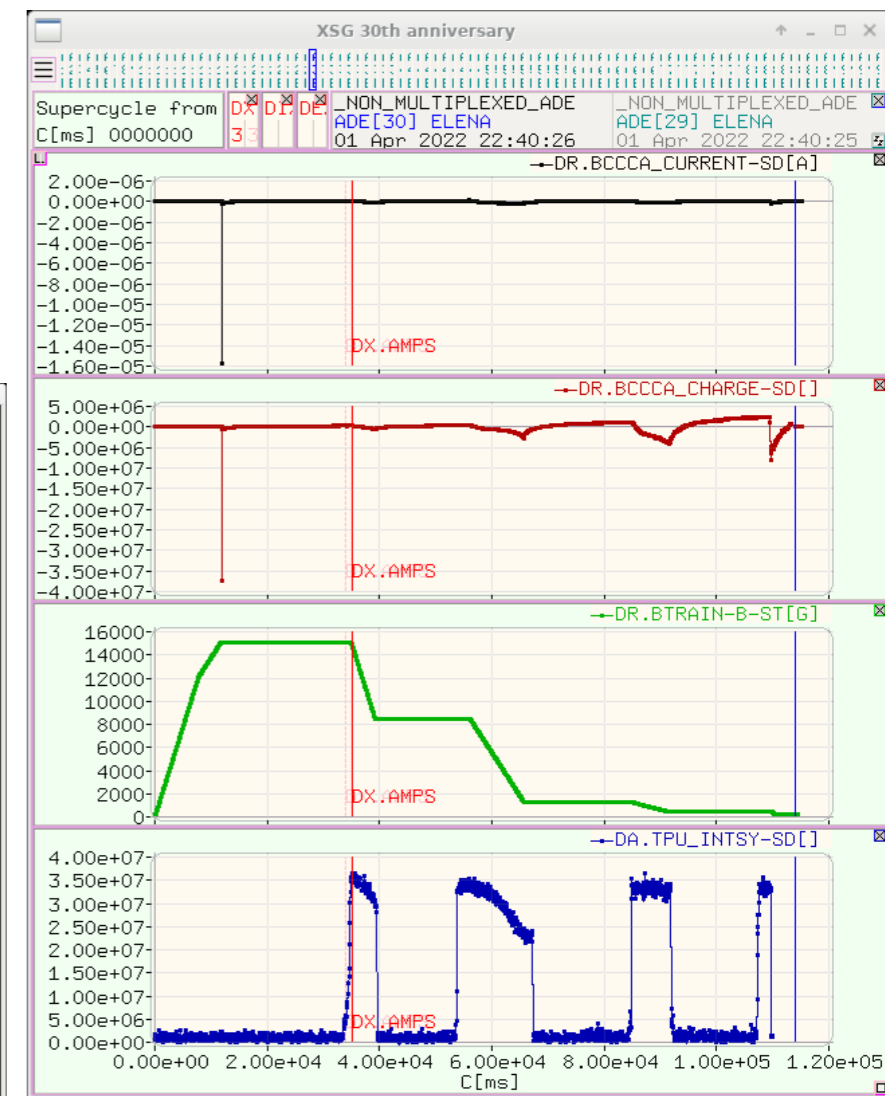
AD and ELENA recommissioning status

- First injection on Monday, beam extracted to LNE on Thursday evening:
 - minimum setting-up to go to the next steps and identify potential problem
 - Nominal beam from PS, only half intensity extracted from ELENA



- Repair of the QMAIN2 power converter completed on Monday:
 - Nominal operation OK + test couple of hours at max current DC
- Injection tests in AD on Monday:
 - Pbars IN with settings of end of 2021 for DI, septum and injection kicker
 - Got circulating beam during heat run of QMAIN2!
- Circulating beam on Tuesday:
 - Bunch rotation, stochastic cooling at 3.5 GeV/c
 - Some hick-ups to control RF cavity
 - Beam decelerated and cooled up to 300 MeV/c
- Beam extracted from AD on Wednesday:
 - Copy of Hminus cycle for pbars
 - Orbit and working points setting optimized
 - New LLRF timings in place
 - HV switch of e-cooler not ON because of vacuum spike:
 - E-beam ON during deceleration to 100 MeV/C
- Beam to ELENA and extracted to LNE50/01 on Thursday
 - Ajustement of injection synchro
 - First correction of injection oscillation
- Access in AD to fix connection problem on SC amplifiers + test of the pause on Friday

- Some doubts on BCCCA reading:
 - Reasonable measurement with low intensity
 - Problem when increasing intensity
 - BCCCA giving zero but BCT7049 giving $1.9e7$!
 - TPU measurement giving $3.5e7$ and
 - ELENA TPU $2.5e7$
- BI expert investigating:
 - Related to beam losses?





Couple of issues



- Access in AD to fix connection of stochastic cooling amplifiers to the kicker
- Problem with the 2 GeV notch filter observed with measurement without beam on Friday morning:
 - Will be fixed today
- LNI.BSGW0060 not triggering with pbars injection
 - BI investigating
- Problem with AD finemet cavity servo loop
- HV switch of e-cooler not active:
 - e-beam on during the ramp $300 \text{ MeV}/c \rightarrow 100 \text{ MeV}/c$
 - Vacuum spike when switching ON



Week planning



Week coordinator:

Operators: Lars

	Main activities	Parallel activities
Monday	<ul style="list-style-type: none">• 2 GeV notch filter investigation:<ul style="list-style-type: none">- beam to 2 GeV plateau only• 3.5 GeV stochastic cooling setting-up/measurement<ul style="list-style-type: none">- injection only	<ul style="list-style-type: none">• AD IPM : test with MCP on ?• Optimization of DI, septum,kicker• HV switch of e-cooler ?
Tuesday	<ul style="list-style-type: none">• Morning: 5 bunches extraction from PS tests:<ul style="list-style-type: none">- no beam for AD/ELENA setting-up• Afternoon: stochastic cooling<ul style="list-style-type: none">- machine in pause	
Wednesday	<ul style="list-style-type: none">• deceleration/capture• Orbit and tune measurement in AD	
Thursday	<ul style="list-style-type: none">• Stochastic cooling at 2 GeV/c	
	Users request:	
Friday	<ul style="list-style-type: none">• No beam magnetic field pulse over night and WE for BASE precision measurement:<ul style="list-style-type: none">– Proposal is machine NOT pulsing this week between 22h and 7h• LNE51 commissioning with Hminus/pbars:<ul style="list-style-type: none">– Beam permit to be signed	



Beam commissioning planning



AD cycle	Activity	Duration [working days]	From	To
FTA + Target commissioning		2	28 March 2022	30 March 2022
DI commissioning	DI check in parallell of target conditioning	1	30 March 2022	31 March 2022
Nominal Beam from target	C10 phasing, injection check	1	31 March 2022	01 April 2022
instrumentation check	scraper, tune, BPM	1	01 April 2022	04 April 2022
FT1	Stoch cooling	2	04 April 2022	06 April 2022
RP1	LLRF/longdiag, orbit...	1	06 April 2022	07 April 2022
FT2	Stoch cooling	2	07 April 2022	11 April 2022
RP2	LLRF/longdiag, orbit...	1	11 April 2022	12 April 2022
FT3	ecooling..	1	12 April 2022	13 April 2022
RP3	LLRF/longdiag, orbit	1	13 April 2022	14 April 2022
FT4	ecooling...	2	14 April 2022	18 April 2022
Extraction	LLRF/longdiag...	1	18 April 2022	19 April 2022
Transfer lines	Steering, Quad scan	1	19 April 2022	20 April 2022
ELENA				
H minus operation			08/03/22	
pbars operation				
injection setting-up		1	21 April 2022	22 April 2022