Wednesday 21/4/2010

Morning:

- Injecting again beam 1 and beam 2, correcting as required.
- RF re-phasing done : Now can trim over a range of about +/- 600 deg, without implication of the bucket number
- CO: Pierre Charrue : Restarted the BCT-Proxy on cs-ccr-cmw4. We will now study our log-files to understand what happened yesterday evening (unstable subscriptions affecting Page 1 and logging)

  Later: W. Sliwinski : deployed a new BCT Proxy where he fixed a bug in the RDA communication library.
- Inject again both beams for ramp

Wednesday 21/4/2010

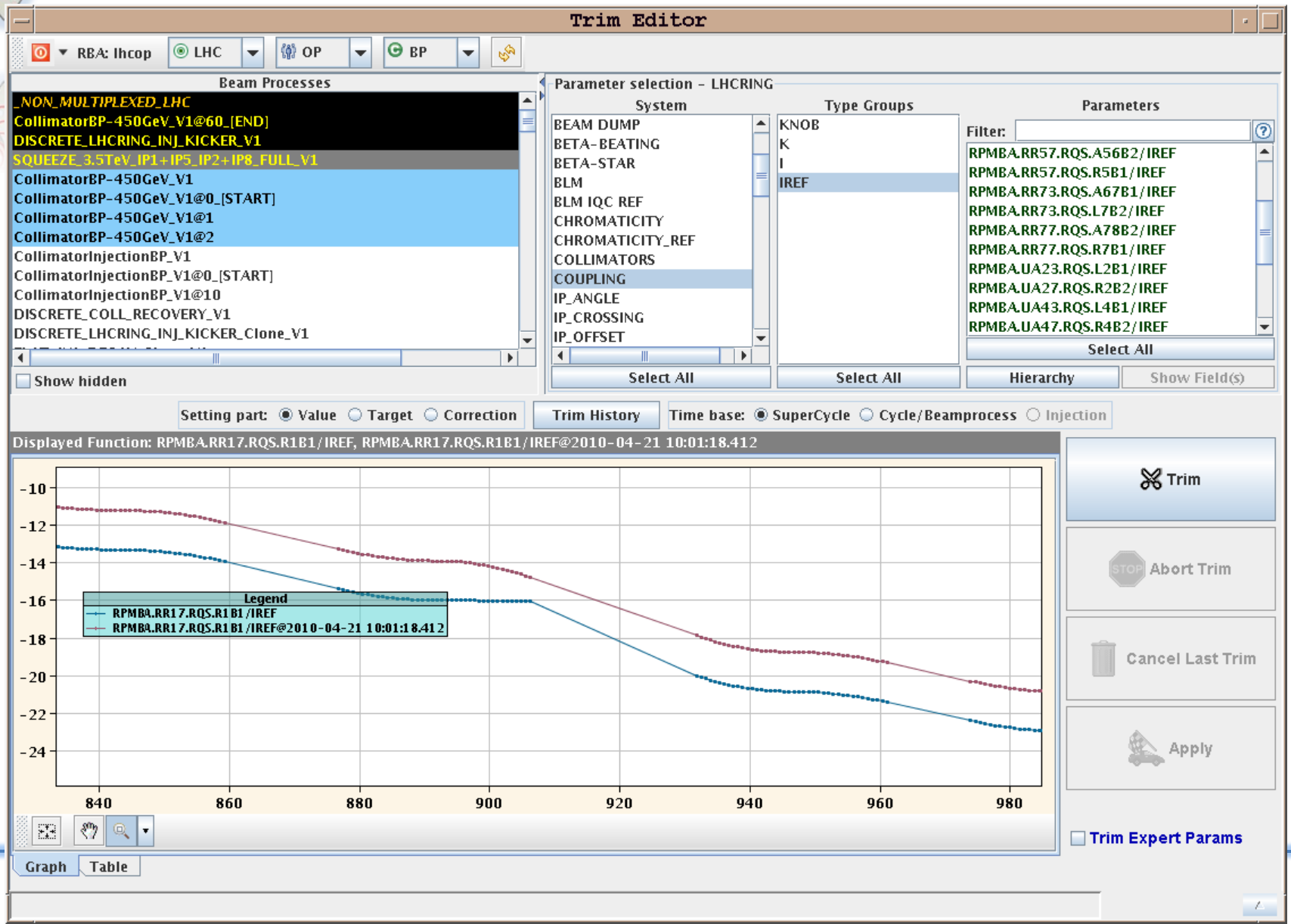
- squeeze of all IPs at once:
  - From 4 m to 3.5 m : lost RQS.A78B2 circuit, and consequently a large fraction of B2 (left with 5e9 vs. 2.3e10). Coupling function problem which appeared with the incorporation from the end-of-ramp actual. Indeed, the function in the trim shows spikes which lead to U_res above threshold.

    Stefano: trick:

    - Coupling knobs trimmed back to their values before incorporation
    - K functions reverted to the last values generated by Mike this morning
    - Coupling knob manually trimmed to the good delta from the end-of-ramp.

    More robust solution prepared and implemented in the evening – to be tested with next squeeze…

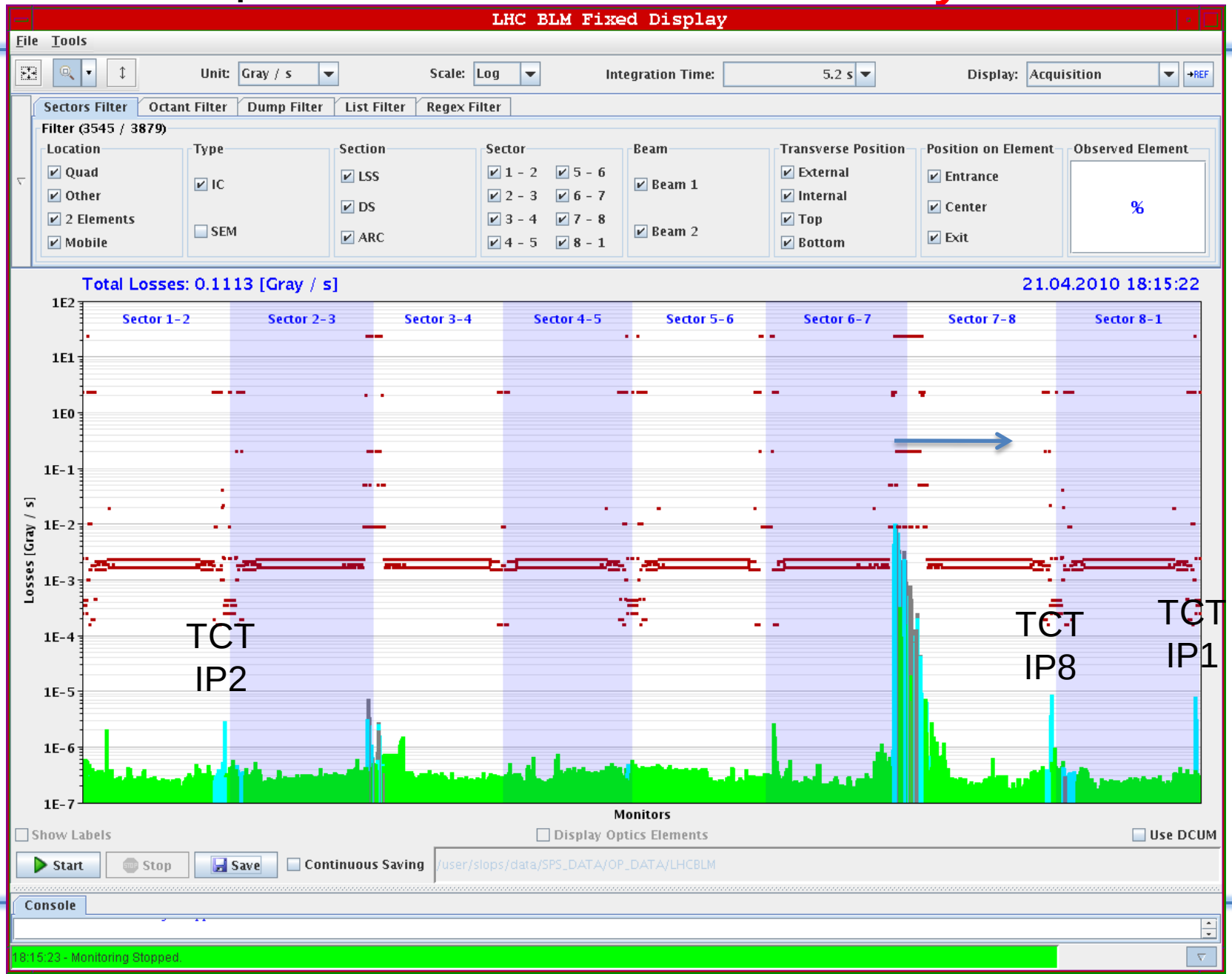
Wednesday 21/4/2010



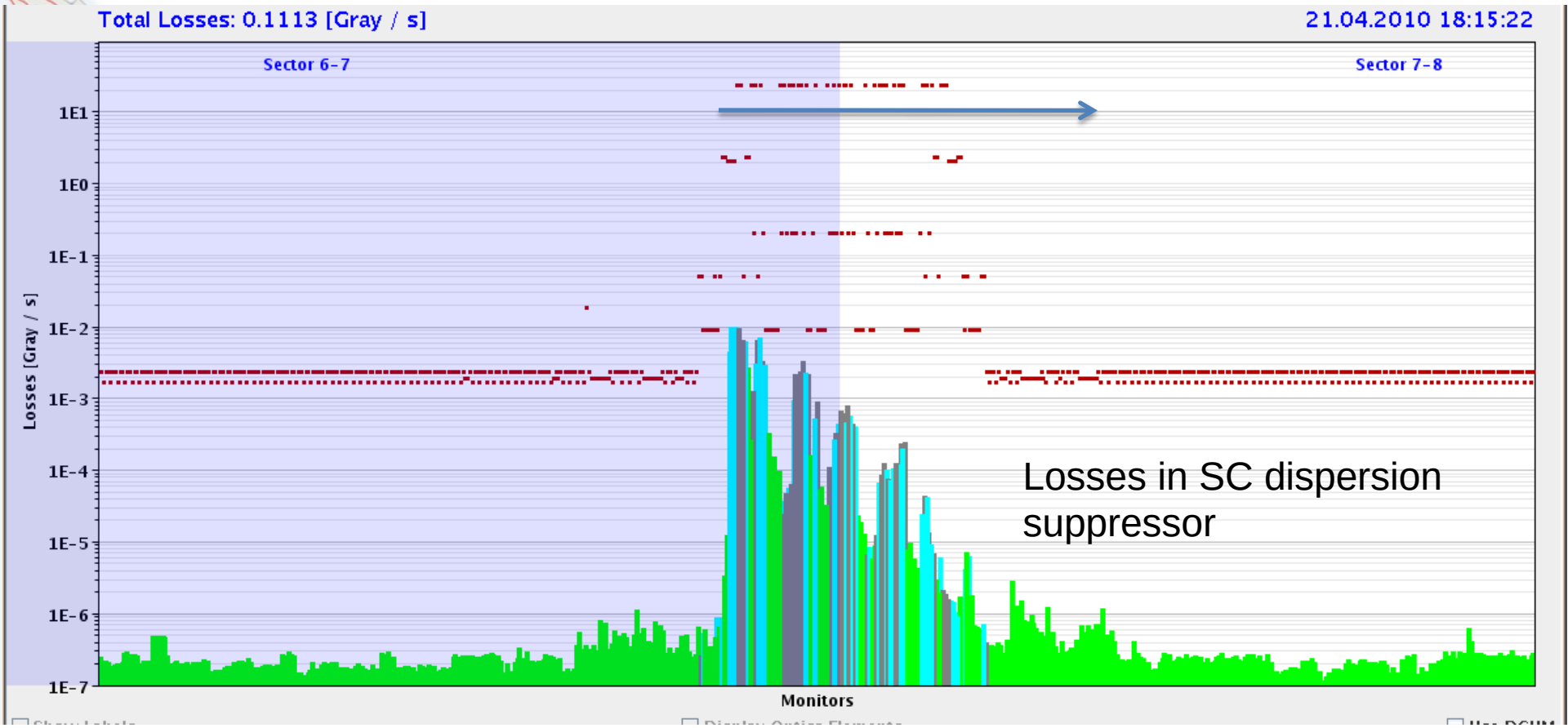
Wednesday 21/4/2010

- Qualification of protection devices for 3.5 TeV, squeeze:
  - Enough beam at 2m to re-establish golden orbit from last night (collision-optimized)
  - All tertiary collimators aligned with beam
  - Squeezed optics then qualified for horizontal and vertical losses both in beam 1 and beam 2.
  - To note: Still to do before stable beams at 2m beta*:
    (1) Qualification for off-momentum losses. To be done this night with 1e10 and large RF frequency trim for both beams at the same time.
    (2) Qualification of asynchronous beam dump with offset error.

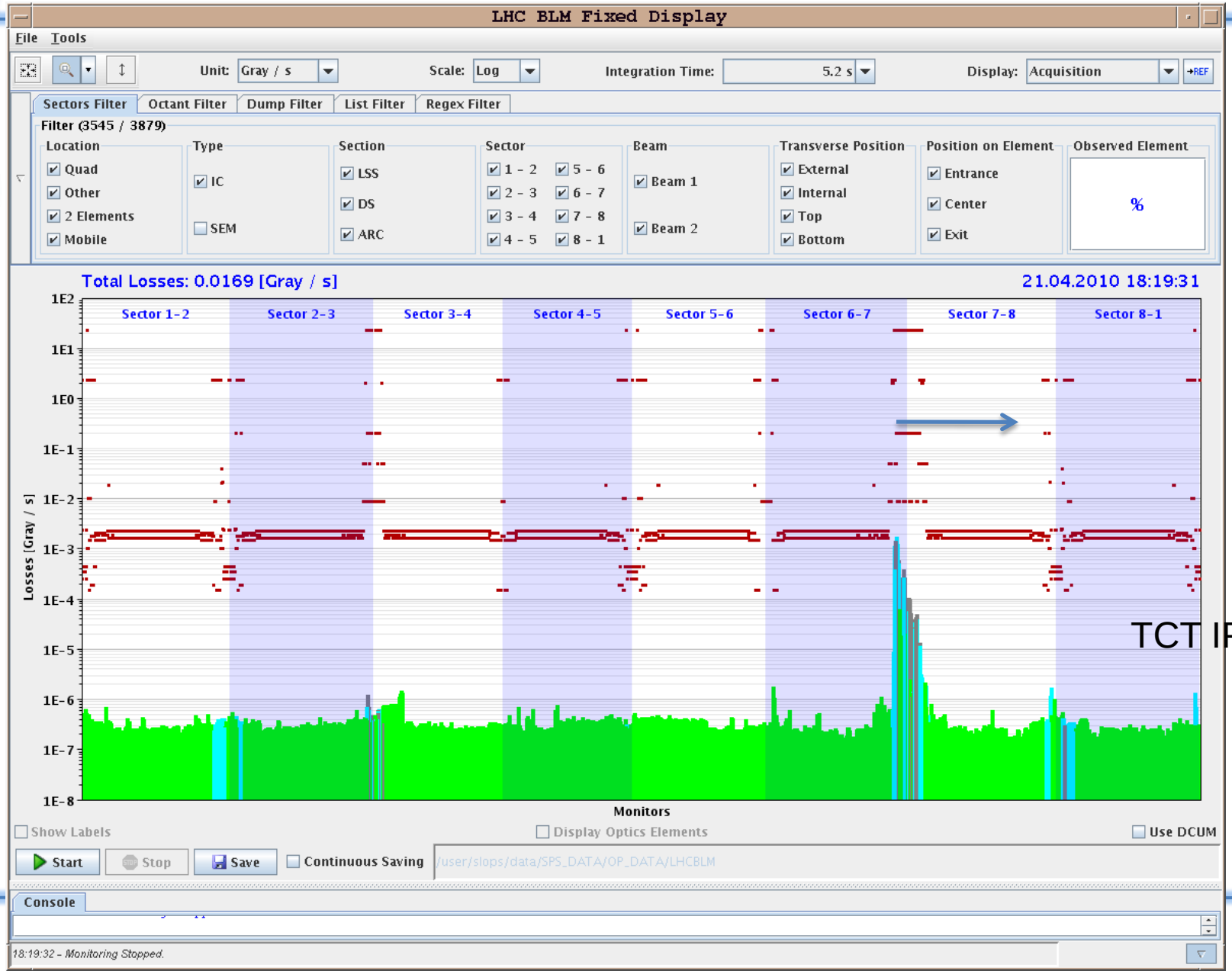
Loss Maps Beam 1 Vertical Wednesday 21/4/2010



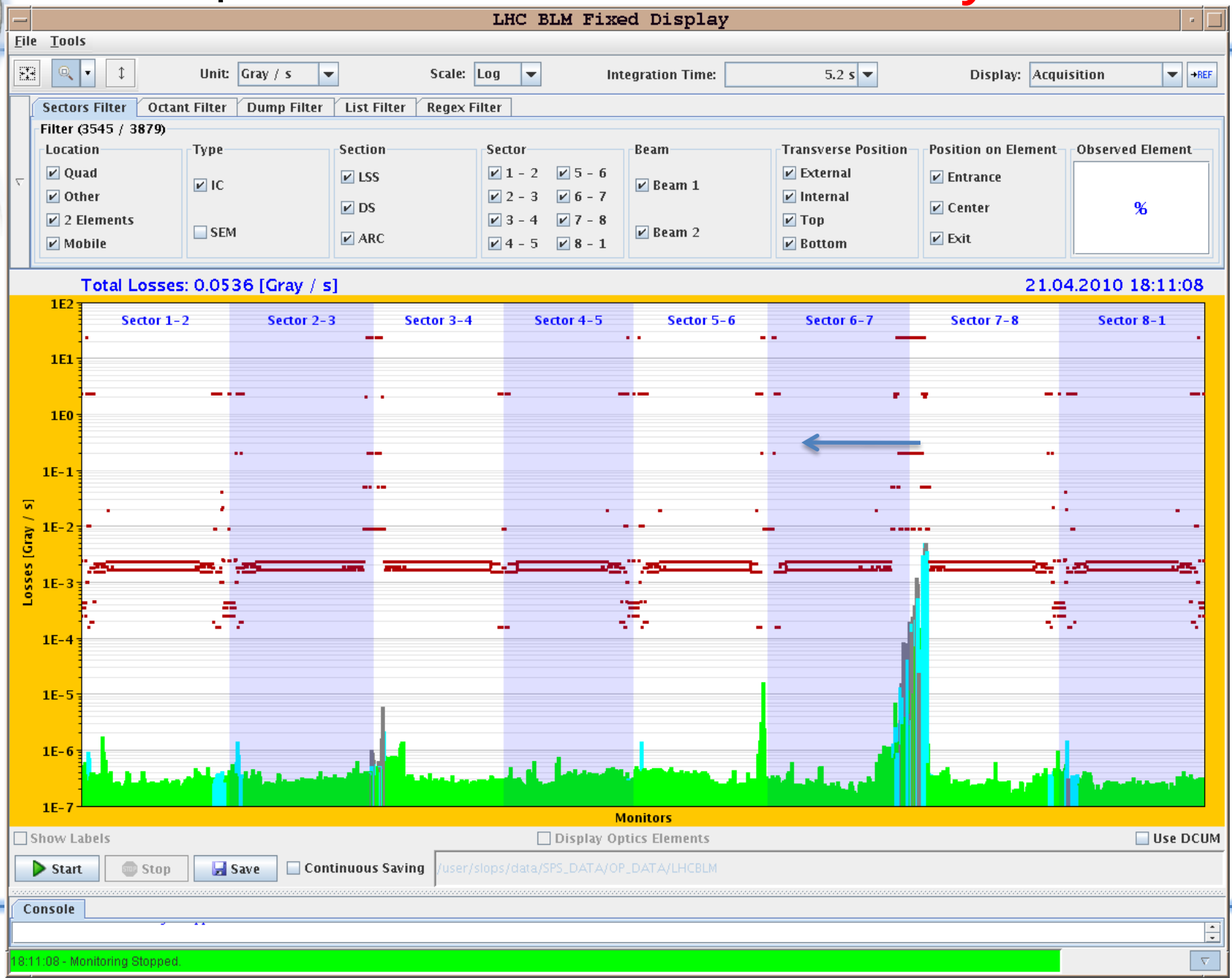
Loss Maps Beam 1 Vertical Wednesday 21/4/2010



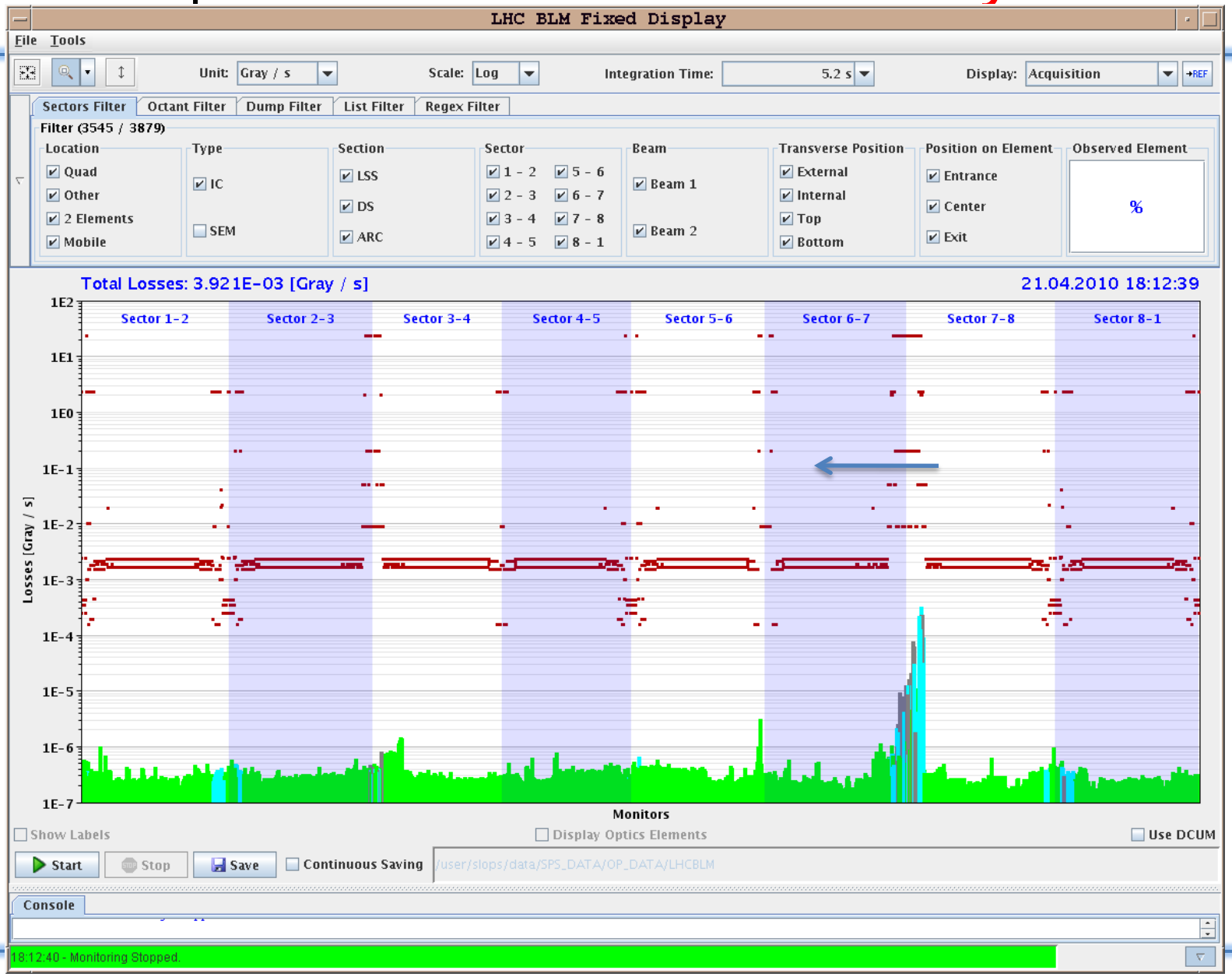
Loss Maps Beam 1 Horizontal Wednesday 21/4/2010



Loss Maps Beam 2 Vertical Wednesday 21/4/2010

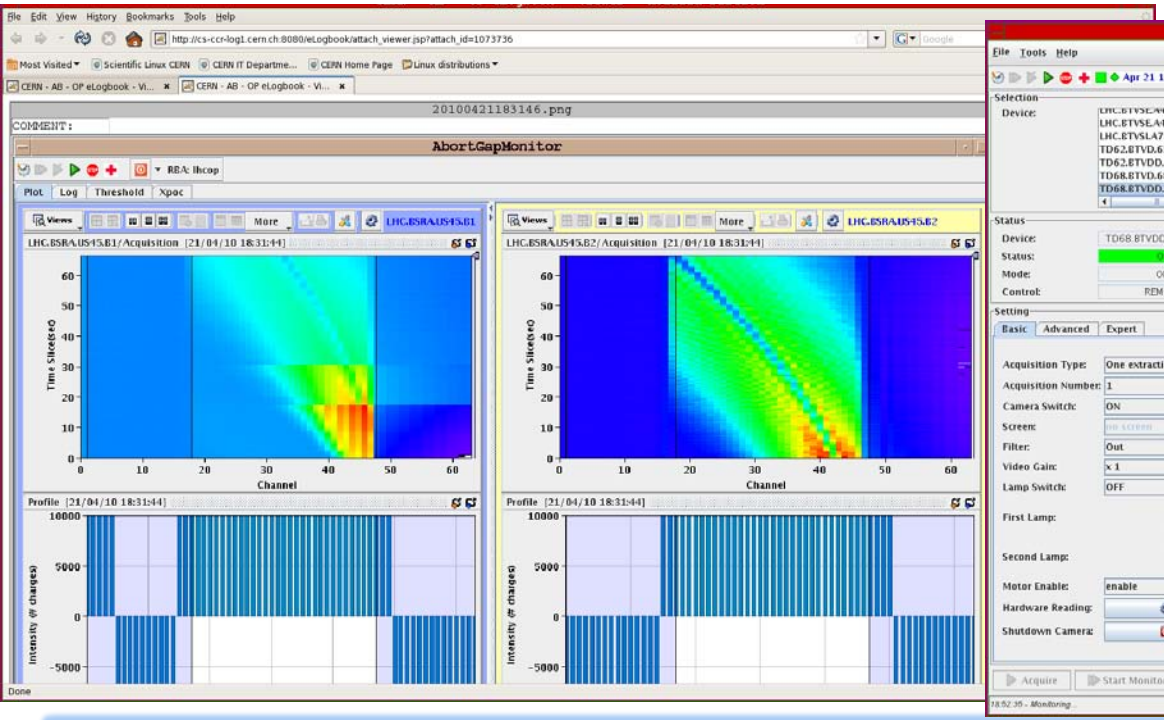


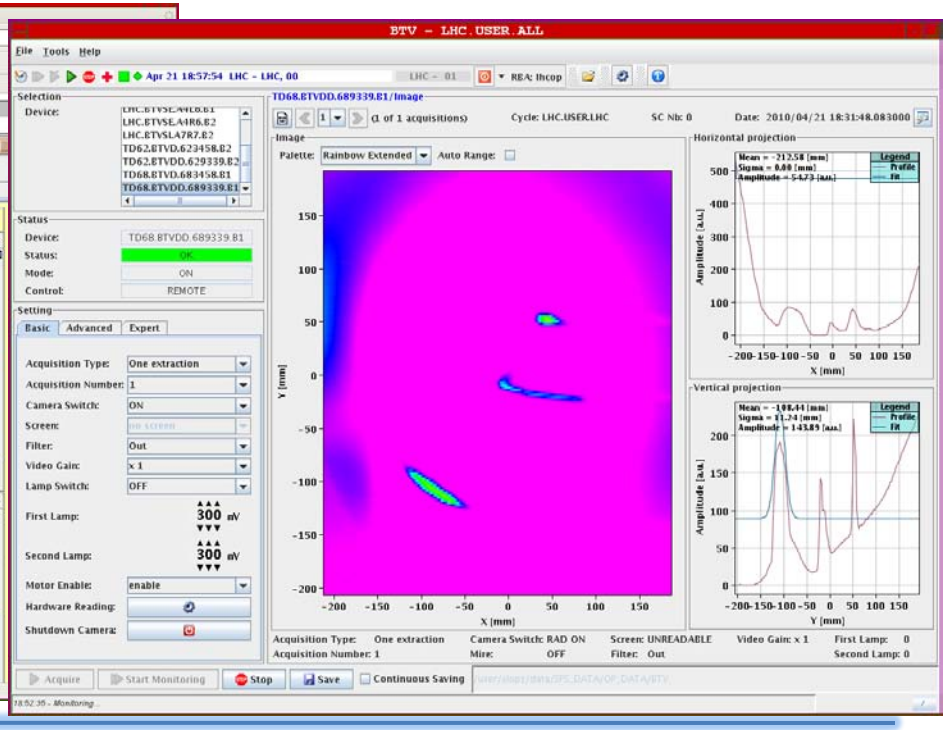
Loss Maps Beam 2 Horizontal Wednesday 21/4/2010



Wednesday 21/4/2010

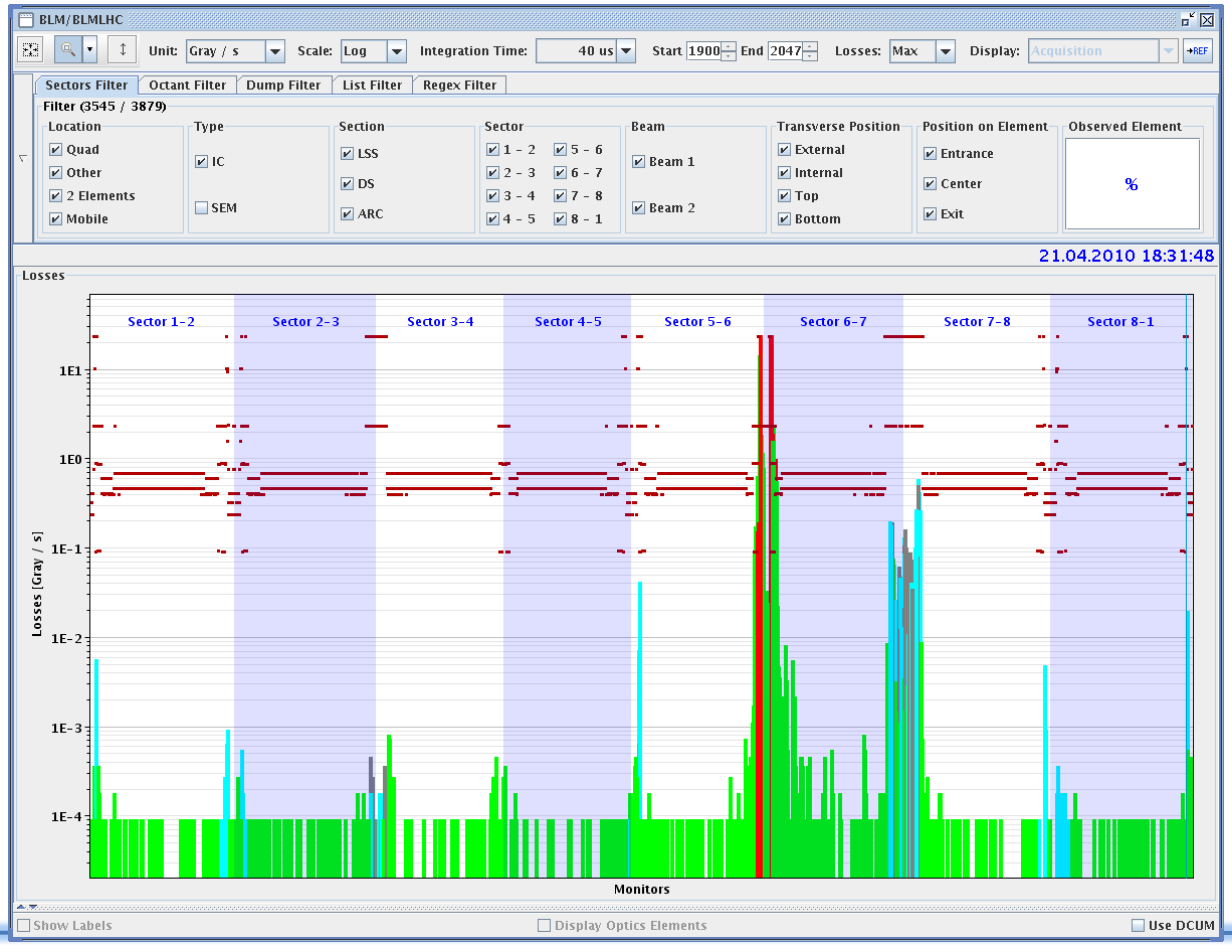
- Asynchronous beam dump
  - Switching RF off for testing an asynchronous dump
  - Dumped beam with operator switch to get PM data. See abort gap nicely filled for both beams (high gain for B2). Intensity about 4e9 for B1 and below a few e8 for B2





Wednesday 21/4/2010

From PM data we see that the losses on the dump protection elements are totally saturated….loss peaks are seen on the TCTs, more for B2 than B1, despite the factor x10 lower intensity.



Thursday 21/4/2010

- Transverse damper studies : cancelled
- Lost the cold compressor in P2 – Preparing for access - Finally cold compressor could be restarted from distance.
- Access required to open 2 cryo valves in IP2. Switch off power converters in sectors 12, 23, 34 and RD34s. A relay was found damaged and the signal is now forced; the relay can be changed during the technical stop.

Upcoming plans

22	TH	9:00	10	Qualification of 3.5 TeV squeezed optics for protection. 1e10/beam.
22	TH	19:00	4	Transverse damper
22	TH	23:00	8	Qualification of 3.5 TeV squeezed optics for protection. 1e10/beam.
23	FR	7:00	2	End of fill ramp down - PS intervention (fire dectection system) - no beams.
23	FR	9:00	6	Abort gap cleaning commissioning.
23	FR	15:00	10	2 hrs high intensity injection - Collimation setup @ 450 GeV. 2e11/beam.
23	SA	1:00	8	Fill @ 3.5 TeV squeezed: Stable beams. 3.5e10/beam.
24	SA	9:00	6	Measurement of n1 @ 450 GeV. 3e9/beam.
24	SA	15:00	8	Injection protection setup
24	SA	23:00	8	Fill @ 450 GeV: Stable beams. 2e11/beam.
25	SU	7:00	8	LBDS MPS checks (LBDS & RF team)
25	SU	15:00	8	Abort gap cleaning commissioning.
25	SU	23:00	8	Fill @ 450 GeV: Stable beams. 2e11/beam.