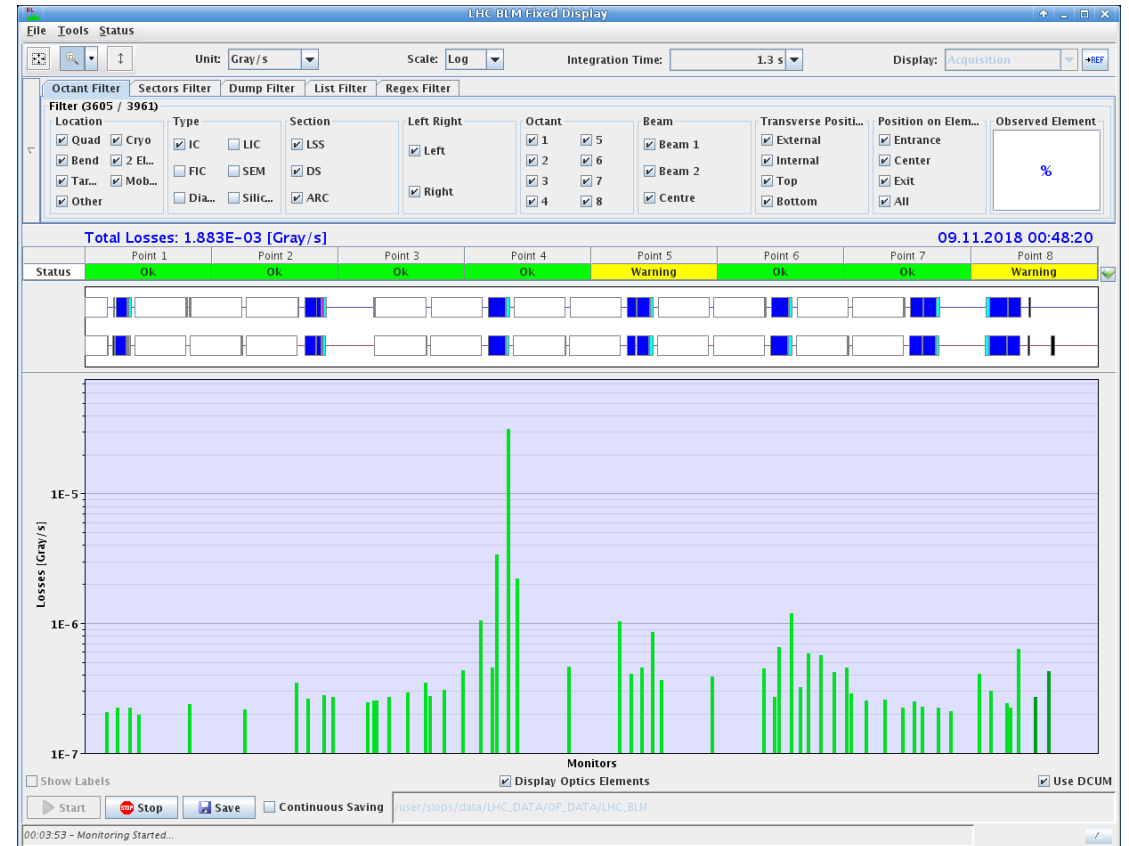
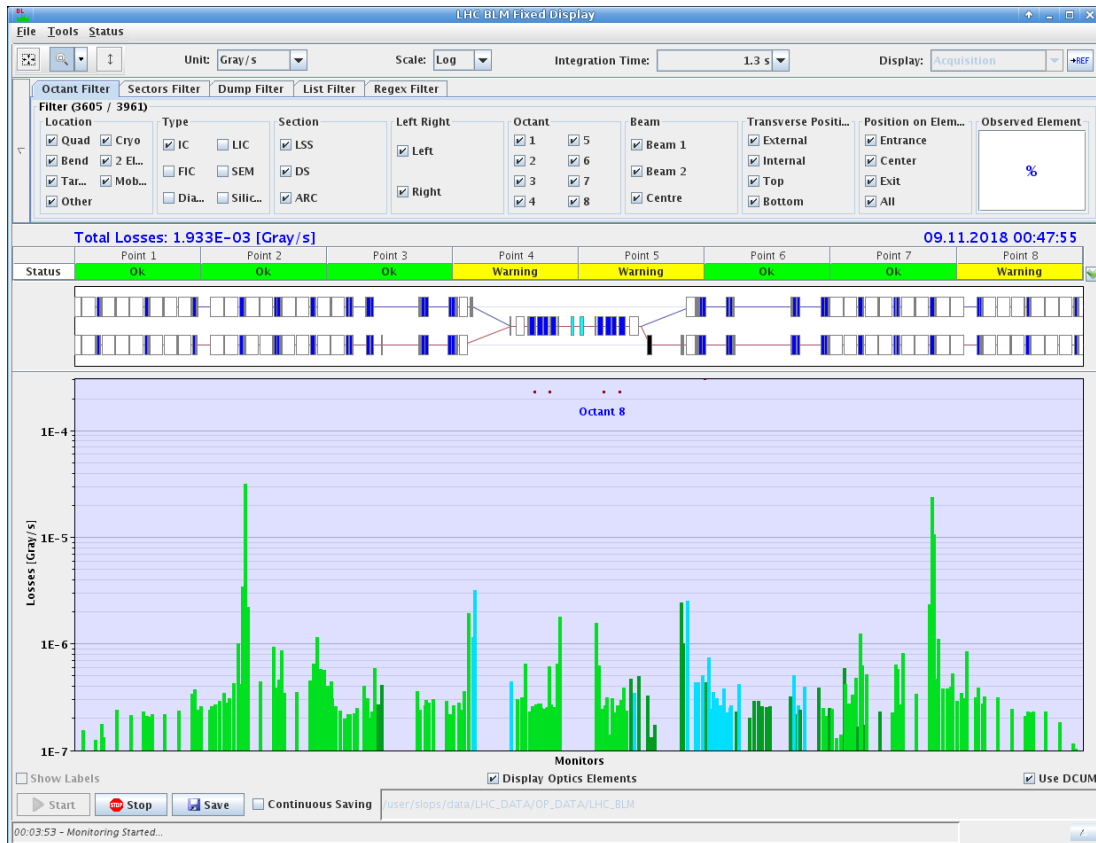


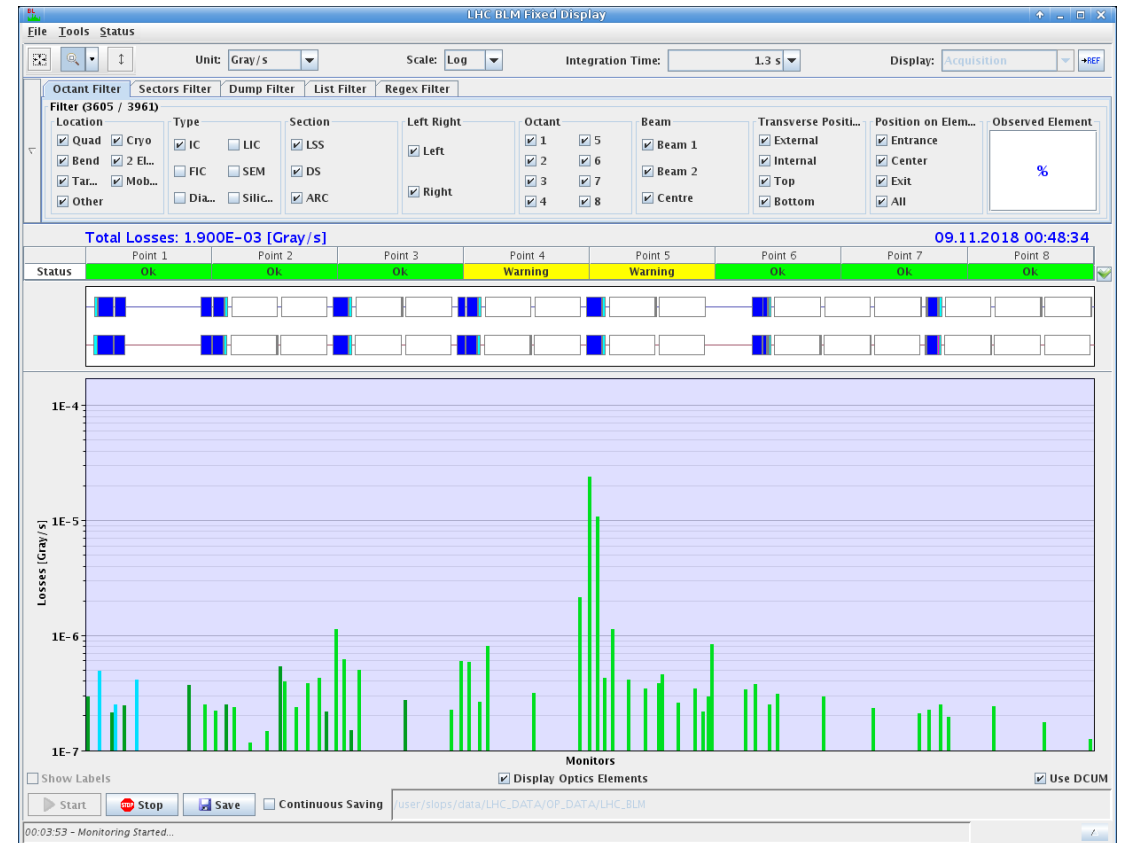
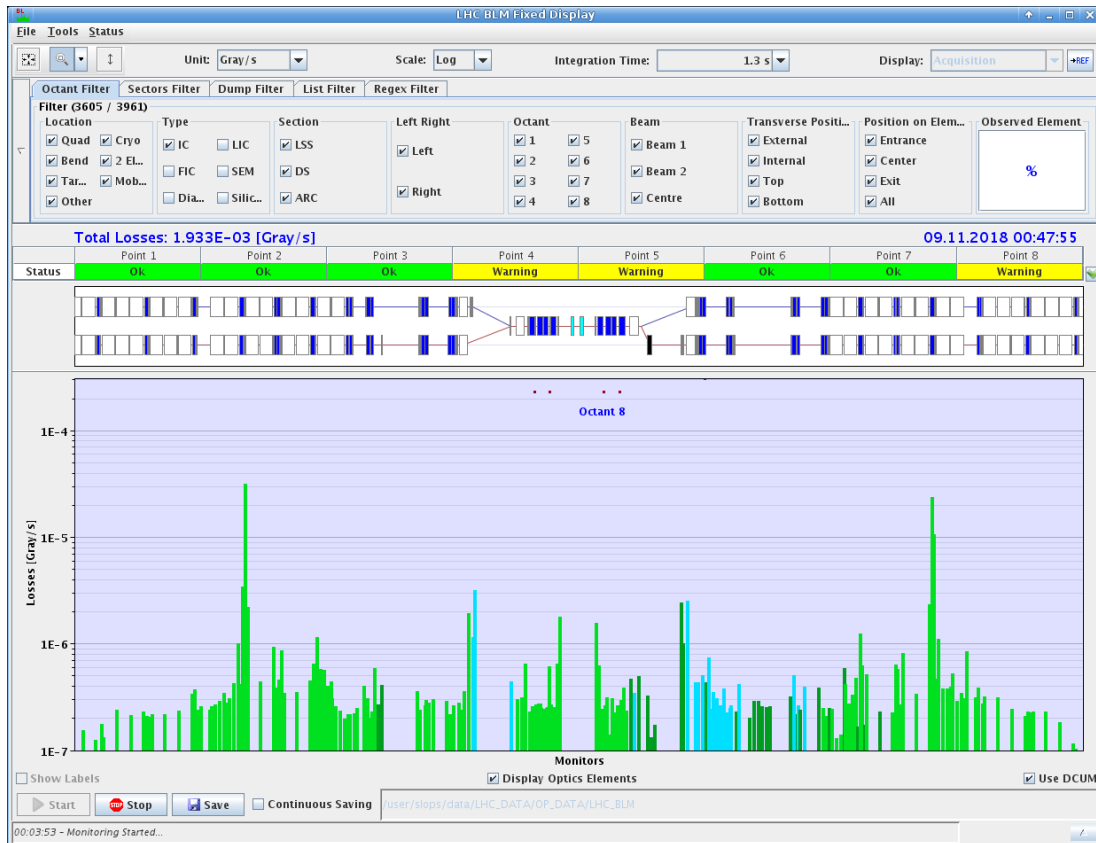
BFPP IR8

- BFPP loss location L8:
 - **Around MB.B10L8-Q10**



BFPP IR8

- BFPP loss location R8:
 - **Around MB.B10R8-Q10**



BLM threshold changes BFPP IR8

- Quench risk:
 - Peak power density estimated to be around **9 mW/cm³** (FLUKA simulations) for a luminosity of **1x10²⁷ cm⁻²s⁻¹** if the loss peak is inside the MB
 - Quench level found in 2015 BFPP quench test was around **15-20 mW/cm³**
 - In short, there should be no risk of quench if they don't exceed of **1x10²⁷ cm⁻²s⁻¹**
- Disclaimer:
 - No reliable LHCb luminosity published in TIMBER, hence we have to use luminosity calculated from beam/optics parameters (emittance, beta*, bunch intensity, bunch crossings, etc.) in order to scale BLM signals for possible target lumi of **1x10²⁷ cm⁻²s⁻¹**
 - Fine-tuning of thresholds might be needed next week

BLM threshold changes BFPP IR8

- Which BLMs would dump? -> Two BLMs at Q10
 - **BLMQI.10L8.B2I10_MQML** (MF presently at **0.333**)
 - Would reach warning at **$0.15 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$**
 - Would dump at **$0.51 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$**
 - **BLMQI.10L8.B1I10_MQML** (MF presently at **0.333**)
 - Would reach warning at **$0.19 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$**
 - Would dump at **$0.64 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$**
- Changing to MF=1.0?
 - **BLMQI.10L8.B2I10_MQML** with **MF=1.0**
 - Would reach warning at **$0.46 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$** → **Would reach in WARNING**
 - Would dump at **$1.54 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$**
 - **BLMQI.10L8.B2I10_MQML** with **MF=1.0**
 - Would reach warning at **$0.57 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$** → **Would reach in WARNING**
 - Would dump at **$1.91 \times 10^{27} \text{ cm}^{-2}\text{s}^{-1}$**

BFPP IR1/5

- Orbit bumps:
 - Bump amplitude so far was 5 mm, but will be adjusted in one of the next fills (to 2-3mm)
 - With 5mm, BFPP losses too close to Q11 -> would dump just above $1 \times 10^{27} \text{ cm}^{-2} \text{ s}^{-1}$ at the Q11 (at least L1, didn't check the other locations yet)
 - Need to verify the sig-threshold ratios after final bumps have been put in place