

eLogbook 04 - November 2009

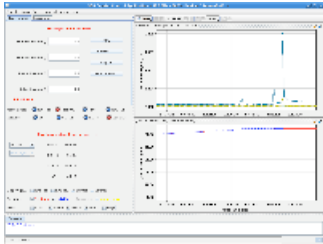
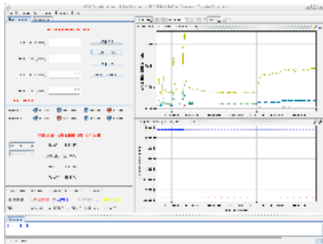


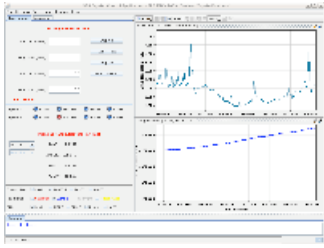
SPS Morning

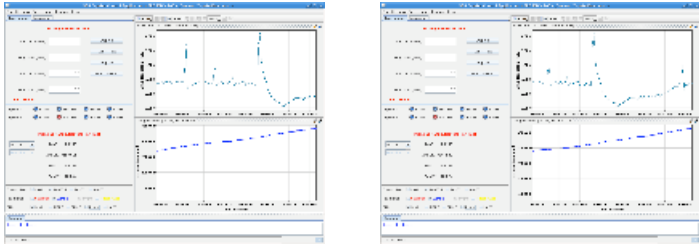
is logged.

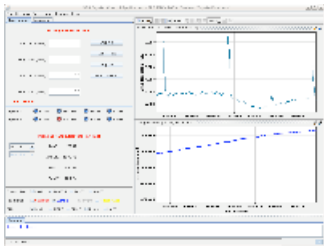
FILTER: Piquets Expert INFO Clear

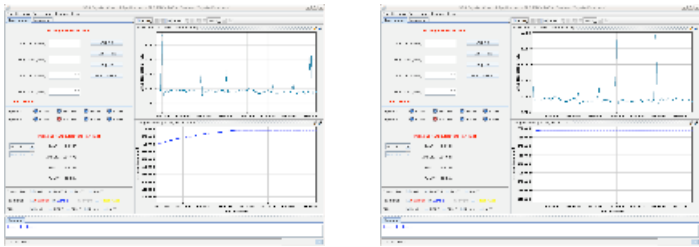
| # | Time | LHC 1 | Comment |
|---|-------|-------|--|
| 1 | 07:01 | | Crystal 1 aligned: 76.6mm   20091104070145.png 20091104070224.png Created by spsop from cwo-ccc-alle |
| 2 | 07:02 | | James, Florence Created by spsop from cwo-ccc-a7lc |
| 3 | 07:03 | | Crystal out, we start alignment of medipix (RP1-H1) Created by spsop from cwo-ccc-alle |
| 4 | 07:12 | | Medipix aligned : 35.7mm (first peak), 35.8mm (second peak) Beam intensity 1.4E11 Beam lifetime: 7hh 37mm 44ss  20091104071328.png Created by spsop from cwo-ccc-alle |
| 5 | 07:15 | | Medipix out, we align crystal 2 Created by spsop from cwo-ccc-alle |
| 6 | 07:26 | | Crystal 2 aligned: 77.4mm  20091104072634.png |

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|----|-------|---|------------------------------------|
| | | | Created by spsop from cwo-ccc-alle |
| 7 | 07:27 | Crystal out, we align the scatter | Created by spsop from cwo-ccc-alle |
| 8 | 07:36 | Scatter aligned: 54.2mm  20091104073745.png | Created by spsop from cwo-ccc-alle |
| 9 | 07:38 | Reference positions after alignment: Collimator: left 4.175mm, right -3.225 mm TAL: 66.5 mm Crystal 1: 76.6 mm Crystal 2: 77.4 mm Medipix: 35.7 mm | Created by spsop from cwo-ccc-alle |
| 10 | 07:42 | We set the TAL at 64.5 mm (2mm back with respect alignment) Crystal 1 at 76.4mm | Created by spsop from cwo-ccc-alle |
| 11 | 07:51 | Collimator out at +-20mm we start angular scan (from -6.5mrad to +6.5 mrad)  20091104075219.png | Created by spsop from cwo-ccc-alle |
| 12 | 08:01 | We restart the scan (collimator moved in by mistake) | Created by spsop from cwo-ccc-alle |
| 13 | 08:20 | Since a couple of minutes, we see a spiky behaviour of the beam losses at the cristal.  20091104082327.png 20091104082344.png | Created by spsop from cwo-ccc-a2lc |

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|----|-------|---|
| 14 | 08:22 | <p>Channeling angle -2200mrad</p>  <p>20091104082247.png</p> <p>Created by spsop from cwo-ccc-alle</p> |
|----|-------|---|

| | | |
|----|-------|---|
| 15 | 08:40 | <p>Channeling at 3250 mrad?</p>  <p>20091104084049.png 20091104084129.png</p> <p>Created by spsop from cwo-ccc-alle</p> |
|----|-------|---|

| | | |
|----|-------|---|
| 16 | 08:49 | <p>channeling at 5900mrad</p>  <p>20091104085020.png</p> <p>Created by spsop from cwo-ccc-alle</p> |
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| | | |
|----|-------|--|
| 17 | 08:53 | <p>Scan finished spikes persist!</p>  <p>20091104085408.png 20091104085515.png</p> <p>Created by spsop from cwo-ccc-alle</p> |
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| | | <p>Changing of angle lvdt reading (according to collimator application) following the movement of a quartz close by.</p> |
|--|--|--|

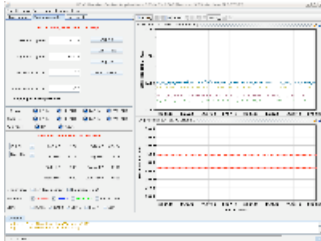
18 08:56

20091104085632.png

Created by spsop from cwo-ccc-alle

Cryatl out and collimator in to reference initial position spikes disappear

19 09:05

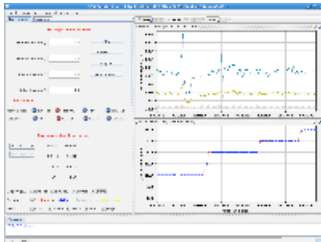


20091104090505.png

Created by spsop from cwo-ccc-alle

linear detector moved (=quarz)
BLM signal up

20 09:20

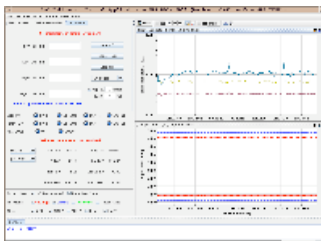


20091104092114.png

Created by spsop from cwo-ccc-alle

Still some spikes in the losses...

21 09:22



20091104092359.png

Created by spsop from cwo-ccc-a2lc

Alignment of silicon detector: 45.9mm.

| | | |
|----|-------|--|
| 22 | 09:24 |  <p>20091104092521.png</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a2lc</p> |
| 23 | 09:27 | <p>Silicon detector out by 4mm</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a1lc</p> |
| 24 | 09:28 | <p>Crystal 1 in</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a1lc</p> |
| 25 | 09:29 | <p>Transverse emittance meas.</p> <p style="text-align: center;">Hprofile.png Vprofile.png</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a4lc</p> |
| 26 | 09:33 | <p>Crystal IN a primary aperture (spike at 09:32 in the picture).</p> <p>Then we see still spike from unknown sources. Peaks only seem to be present when the ctystal is IN.</p> <p style="text-align: center;">20091104093445.png</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a2lc</p> |
| 27 | 09:37 | <p>Retract crystal 1 by 10 mm, then another 10 mm.</p> <p>Collimator is the primary bottleneck.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">20091104093850.png 20091104093922.png</p> |

Created by spsop from cwo-ccc-a2lc

28 09:45

Crystal back into the beam.



20091104094647.png

Created by spsop from cwo-ccc-a2lc

29 09:48

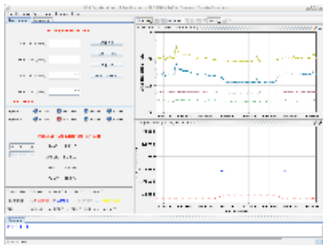
Collimator OUT.

Now start a scan with crystal-1 and and TAL in.

Created by spsop from cwo-ccc-a2lc

30 09:53

Channeling peak close two -2000murad.



20091104095647.png

Created by spsop from cwo-ccc-a2lc

31 10:06

fine scan with crystal 1 - minimum at -2060 urad.
coincidence for tec 3-4 are 2500 in channeling

Created by spsop from cwo-ccc-a2lc

32 10:08

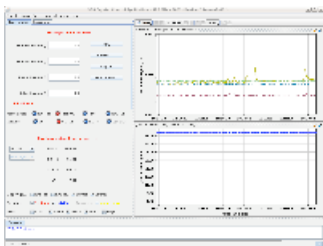
try to switch off the power supplies of the orbit corrector in order to try to eliminate the spikes

We lose some beam (from 1.4e11 to 3.7e10)

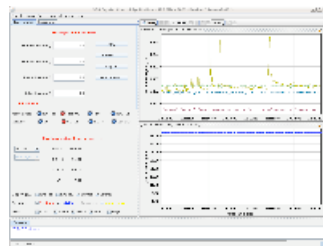
Created by spsop from cwo-ccc-a7lc

33 10:16

we move the crystal into the beam until we see losses and we keep it there for few minutes in order to check if spikes are still present
Cristal at 78.76mm



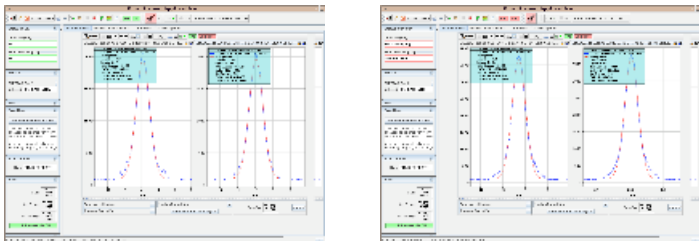
20091104101953.png



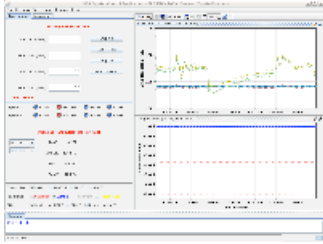
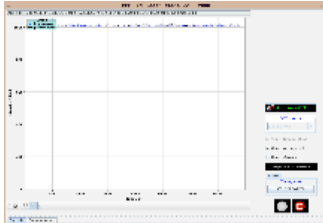

20091104102030.png

Created by spsop from cwo-ccc-a1lc

Spikes are gone!

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| 34 | 10:23 | | |
| | | 20091104102428.png | Created by spsop from cwo-ccc-a7lc |
| 35 | 10:24 | <p>we put the collimator in again -we lose some beam - the orbit has changed... we re-align and center the collimator</p> <p>pos collimator: 4.17 -3.225</p> | |
| | | 20091104103333.png | Created by spsop from cwo-ccc-a7lc |
| 36 | 10:24 | We extract all the elements to inject a new beam | Created by spsop from cwo-ccc-a7lc |
| 37 | 10:25 | Unable to get YASP acquisitions due to TGM timeout. We see the TGM video is blocked too. We called Ioan Kozsar. | Created by spsop from cwo-ccc-a7lc |
| 38 | 11:00 | Call Alsdair for access controle console for North area: completely bloqued! | Created by spsop from cwo-ccc-a7lc |
| 39 | 11:01 | It seems the PS are having some problems with pole face windings | Created by spsop from cwo-ccc-a7lc |
| 40 | 11:21 | North area access system problem seems as though it may be due to a network upgrade/repair. We ask Didier to have a look. | Created by spsop from cwo-ccc-a7lc |
| 41 | 11:32 | new coast beam 1e11 protons | Created by spsop from cwo-ccc-a1lc |
| 42 | 11:43 | <p>Transverse emitt. meas.</p>  <p>Vprofile.png Hprofile.png</p> | Created by spsop from cwo-ccc-a4lc |

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| 43 | 13:03 | <p>collimator alignment final positions: left: 2.65 right: -3.35</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a2lc</p> |
| 44 | 13:03 | <p>spikes with the collimator in aat about 3 sigma</p>  <p style="text-align: center;">20091104121338.png</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a2lc</p> |
| 45 | 13:04 | <p>retract the collimator of 0.5 mm after 1:30 min we begin to see some peaks again</p>  <p style="text-align: center;">20091104122126.png</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a2lc</p> |
| 46 | 13:04 | <p>tune meas in coast</p>  <p style="text-align: center;">Tunes.png</p> <p style="text-align: right;">Created by spsop from cwo-ccc-a5lc</p> |
| 47 | 13:05 | <p>increase the cromaticity. Same spikes.</p>  <p style="text-align: center;">20091104122715.png</p> |

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| | | | Created by spsop from cwo-ccc-a2lc |
| 48 | 13:05 | we open the collimator to switch the orbit correctos off | Created by spsop from cwo-ccc-a2lc |
| 49 | 13:06 | re-do the collimator alignment | Created by spsop from cwo-ccc-a2lc |
| 50 | 13:06 | Beam shows a strange behavior: the orbit is moving!  20091104124841.png | Created by spsop from cwo-ccc-a1lc |
| 51 | 13:58 | beam dumped | Created by spsop from cwo-ccc-a2lc |
| 52 | 13:58 | switched all dampers to tunnel access mode | Created by spsop from cwo-ccc-a6lc |
| 53 | 13:59 | New coast, correctors on, dumper amplifier off, beam intensity is now 10e11  20091104131403.png | Created by spsop from cwo-ccc-a2lc |
| 54 | 13:59 | Collimator re-alignment, no spikes (yet). Precision 0.5mm. *****maybe it was the dumper???? *****  20091104131619.png | Created by spsop from cwo-ccc-a2lc |
| 55 | 13:59 | | Created by spsop from cwo-ccc-a2lc |
| 56 | 14:00 | moving the collimator out - create the bump at the tidp | Created by spsop from cwo-ccc-a2lc |
| 57 | 14:00 | Timemarkers for logbook entries don't seem to be correct. Called Carlos who said this should already be fixed | Created by spsop from cwo-ccc-a6lc |
| | | Ana came to the control room and saw that wirescanner 519H was perhaps in | |

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| 58 | 14:00 | the beam. She removes it. | Created by spsop from cwo-ccc-a6lc |
| 59 | 14:00 | Bump done, start the alignment | Created by spsop from cwo-ccc-a2lc |
| 60 | 14:07 | Collimator realigned. Closed orbit 0.5mm. Left jaw: 5.25 Right jaw: -4.25 | Created by spsop from cwo-ccc-a2lc |
| 61 | 14:10 | spikes seem to be back again - 20091104141105.png | Created by spsop from cwo-ccc-a1lc |
| 62 | 14:16 | the spikes are seen also in other elements (TAL) | Created by spsop from cwo-ccc-a2lc |
| 63 | 14:18 | We dump the beam to shut down some power supply in order to try to fix the problem with spikes. | Created by spsop from cwo-ccc-a2lc |
| 64 | 14:23 | After switch off elements on TT10, mask POWER_CONVERTORS_TT10 | Created by spsop from cwo-ccc-a5lc |
| 65 | 14:31 | New coast, realignment of collimator. | Created by spsop from cwo-ccc-a2lc |
| 66 | 14:39 | New alignment: Left jaw: 5.65 Right jaw: -4.5 Closed orbit 0.575mm | Created by spsop from cwo-ccc-a2lc |
| 67 | 14:46 | change in losses due to chromaticity changes (seen both on blms and scintillators)  20091104144719.png | Created by spsop from cwo-ccc-a1lc |
| 68 | 14:51 | After switch off octupoles, mask Power_converters_OCT_skew | Created by spsop from cwo-ccc-a5lc |
| 69 | 14:55 | COAST lost - reloading... | Created by spsop from cwo-ccc-a7lc |
| 70 | 14:55 | Chromaticity adjusted. | |

Created by spsop from cwo-ccc-a2lc

| FAULTS | | | | | | | |
|----------|-------|-------|---------|-------------|-------|-----|----------|
| # | Group | Fault | Element | Description | Begin | End | Duration |
| NO FAULT | | | | | | | |

