

Non-Invasive BCM Calibration (< 1 hour)

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Instructions to Hall C shift crew:

0. Give the operator a copy of this procedure.
1. Fast Raster on (to protect stuff)
2. Target in (some target that can take the maximum current with this raster size)
3. Ask the operator to determine the highest stable current they can reach.

(We're only interested in scalers. But if event rate is too high, the daq may crash. So you might want to adjust the trigger prescales if you think this is an issue. You can start a tentative bcm calibration run while the operator is trying to find out what the maximum stably deliverable beam current is.)

4. Start a run labelled "BCM calibration", or just keep the tentative one going.
5. Make sure the daq keeps running during the procedure until the operator calls to say it is complete.

Instructions to the operator:

This procedure is nominally non-invasive, but of course the leakage is going to change in the other halls. (mostly for the better)

- Do each of the following currents for ~90 seconds each.
- Approximate currents are usually fine, +-1  $\mu\text{A}$ . We need better than that for the 2 $\mu\text{A}$  point however.
- If there's a trip near the start of beam on interval, then restart the clock.
- The zeroes are as important as the beam on periods. Close the slit for these.

In units of  $\mu\text{A}$ :

65 (or highest), 0, 55, 0, 40, 0, 20, 0, 10, 0, 5, 0, 2, 0,

Then repeat it in the same order

65 (or highest), 0, 55, 0, 40, 0, 20, 0, 10, 0, 5, 0, 2, 0,

Let Hall C know when you're done. Thanks!